



Digitized by the Internet Archive
in 2016

JOURNAL

OF THE

ASIATIC SOCIETY.

*A Geographical Notice of the Valley of Jullalabad. By Lieut. MACGREGOR,
Political Department.*

The country which is subject to the controul of the governor of Jullalabad is the valley of the Cabul river, but it is generally termed Ningrahar or Nungnihar, the former being a corruption of the latter word, which signifies in the Affghan language, nine rivers, or rivulets, and has reference to those by which the valley is intersected.

The Khybur mountains cross the valley at its eastern end; the snowy ridge of Soofaid Koh forms its southern boundary; the hills of Kourkutchah, and Seah Koh, and the desert of Gumber trace its western limits; and on the north it is bounded by the primary and inferior ranges of the Safee and Momund hills, which are separated by the Koshkote river.

The Cabul river flows through the northern part of the valley, and its direction is east by south, and west by north. On its left bank from Salpoorah to Kama, a distance of about thirty-five miles, lie the Momund (Bé-doulut) hills. In some places they form ridges, which advance and overhang its banks, and then bend back, and form the plains of Goshta and Kama; at the confluence of the Koshkote and Cabul rivers the valley opens out to the north, and forms the fertile districts of Shiwah, Shegee and Beysoot; the two latter are divided by

a low ridge of barren hills, called Tungee Phagoo. The northern boundary of Shiwah, which skirts the Safee hills, may be estimated at fifteen miles from the left bank of the Cabul river, and the mean width of these districts, limited on the east by the Koshkote river, and on the west by the Gumbeer desert, at six miles. This part of the valley is not generally considered as belonging to Nungnihar, but as it bears on the Koshkote river, which is one of those that give origin to the term, it seems to me, to be very properly included under the denomination.

On the south side of the Cabul river are the plains of Jullalabad, Chardeh, Buttee Kote, Besh Boolay and Dukka. The first mentioned are divided by the Alee Boghan hills, termed by the natives Soork Dewar, these cross the valley and form a low connecting ridge between the Momund hills and the Soofaid Koh. The plain of Buttee Kote is joined on the north by that of Chardeh, and the country to the south of it, and of the plain of Jullalabad, slants up to the base of the Soofaid Koh. Besh Boolay is included in this highland, which Lieut. Wood, of the Indian Navy, describes as embracing all the rough and broken ground between the Khybur and Kurkutcha ranges, and estimates its length at fifty-nine miles, and its mean width at fifteen.

The small plain of Dukka lies on the western entrance of the Khybur pass, the Cabul river marks its northern boundary; it is enclosed on all other sides by the inferior ranges of the Khybur hills (Khoond Khybur): the high road from Dukka to Jullalabad defiles westerly through the hills, and at the narrow part of the pass, a thanah of Momunds is stationed for the protection of travellers; on debouching from the defile, the road leads out on the Geerde country, passes on to Huzurnow and Bursawul, and opens out on the valleys of Buttee Kote and Chardeh.

The plain of Buttee Kote is little else than a stony desert, that of Chardeh is more fertile, on the north of which flows the Cabul river; Márkoh, or serpent hill, limits its eastern boundary; on its west are the Ali Baghan hills, and south lies the Buttee Kote desert; its length may be estimated at nine miles, and mean width at three and a half.

To describe the plain of Jullalabad, I will quote from Lieutenant Wood's report on this part of the country, submitted to Government in 1833.

“A ridge of hills called Deh Koh, or the Black, rises about Jugdulluk, and running east by north till it meets the Cabul river, bounds the plain of Jullalabad on the north; to the south it has the high hill of Nungnihar; east it has the hills of Alec Baghan and desert of Buttee Kote; while its western limit is marked by ridges, which here project into the valley of the Soorkh Rood.”

“The length of the Jullalabad plain is twenty-five miles, and its width does not exceed four miles. A plain situated so high up the temperate zone, with snowy mountains in sight on the north and south, producing all the vegetable productions of a more southern clime, is one of these exceptions, resulting from local influences, that are often found to militate against received opinions regarding climate. From Jullalabad to Gundummuk, the distance is twenty-eight miles, and the difference in the elevation of the two places is 2330 feet, the former being 2170 feet above the sea, and the latter 4150. Travelling from the plain of Jullalabad, the change from a hot to a cold climate is first perceived at Gundummuk; so sudden is the transition, that natives affirm it snows on one side, while rain falls on the opposite.”

The following rivers intersect Nungnihar :—

- | | |
|---------|-----------------------------------|
| Rivers. | 1. The Soorkh Rood, or red river. |
| | 2. The Gundummuk river. |
| | 3. The Kurrusso ditto. |
| | 4. The Chipreeal ditto. |
| | 5. The Hisaruk ditto. |
| | 6. The Kote ditto. |
| | 7. The river of Momund-durrah. |
| | 8. The Koshkóte. |
| | 9. Cabul river. |

The Soorkh Rood rises in Bara Koh, flows through the Hisaruk district, joins the Gundummuk river at Tuttungi Soorkh Rood. Mahomed Acbar, and falls into the Cabul river at Durrounta. It is called the red river, from the colour of its water; it is fed by tributary streams at Tootoo, Baghwanee, Tuttung, and Bala Bagh. The Soorkh Rood is not navigable.

The Gundummuk river rises in the Soofaid Koh; it is joined by streams from Moonkhee Kheil and Koodee Kheil; it flows by Gundummuk, and falls into the Soorkh Rood at Killa-Alladad-Khan; it is not navigable.

The Kurruso river rises in the Soofaid Koh, runs through the valley of the Wuzzeeree Khoogeeanee, passes Kujja, Behoor, and Futtihabad, and flows into the Soorkh Rood, close to the town of Bala Bagh.

The Chipreeal river rises in the Soofaid Koh, a little about Pucheea, flows by Agan, Chipreeal, and Heidah, and joins the Cabul river, about four miles to the eastward of Jullalabad at Serai-i-Khoosh Goombuz.

The Hisaruk, like the rest rises in the Soofaid Koh, above Muzeena, runs past Hisarshae, Burroo and Bareekal, travels on to Chardeh, and sinks into the Cabul river at Lachoopoor.

The Kote river rises in the Soofaid Koh, its course is by Khunder Khanee, Buttee Kote, Chardeh, and falls into the Cabul river at Killa-i-Khalid-Khan.

The river of Momund Durra rises in a valley, from which it takes the name, and which is situated among the inner ranges of Soofaid Koh; this river flows past the Nāzeean valley, and the Sheinwāree forts of Besh Boolag, it branches into two streams near Busawul, the larger one falls into the Cabul river at Busawul, and the smaller one flows in the direction of Huzārnow, and exhausts itself on the cultivation appertaining to that place. This river forms the limit of the Cabul valley on the south-eastern side, paying revenue to the Government.

The Kashkote river is said to rise near the source of the Oxus, it flows through Kashgar, Chughurserai, Koonur and Kashkote, and joins the Cabul river near the village of Kama. During the summer, on the melting of the snow of the Safee mountains, this river is not fordable. Timbers are floated down from Chughurserai, Koonur, and the Safee valleys to Jullalabad. Rafts of inflated cow hides also float down the river, bringing grain, iron, and other articles, supplied from the Bajore and Koonur countries.

The Cabul river in its course receives several considerable rivers, the Punjsheer, Ghorebund, and Loghur streams, besides Cabul River. those intersecting this valley are its tributaries; in summer it flows with great violence; it is fordable only from November to April. Rafts of inflated hides float with the current, and convey people and goods from Jullalabad to Peshawur. Rafts cannot stem the current. On the journey down the river being accomplished, the raftsmen take the hides out of the water, allow the inflated air to escape, pack up the hides, and return with them by land, either laden on, jackasses, or upon their own shoulders.

These streams, with the exception of the Soorkh Rood, Kashkote, and Cabul rivers are more properly termed rivulets, they are chiefly fed by the melting snows of the Soofaid Koh: canals conduct their waters over the country through which they flow, and spread fertility wherever their influence extends. Several of these streams, during the summer at the period of the rice cultivation, are exhausted before they reach the Soork Rood or Cabul river, to either of which, at other seasons, they form tributaries.

The distance of Dukka to Soorkhal, by the high road is $77\frac{1}{2}$ miles, vide subjoined table of routes furnished me by Captain Paton.

The low hills of Jullalabad are extremely barren, but the lofty ranges of Koond, Kurkutchah, and Soofaid Koh, are richly clad with pine, almond, and other trees, which supply the market with excellent timber.

The highest peak of Speenghir or Soofaid Koh, is stated by Lieut. Wood, at 14,100 feet above the level of the sea. The same officer talking of the people who inhabit the hilly country, says, "To see a stream well-conducted along the face of a hill twenty-five feet above the mean level of the valley below is not uncommon, and where no rivulets intersect the valleys, a running stream is procured from *kar-kezes*, or wells. The appearance of these sequestered valleys is a mixture of orchard, field, and garden. They abound in mulberry, pomegranate, and other fruit trees, while the banks of their streams are edged with a fine healthy sward, enamelled with a profusion of wild flowers, and fragrant from aromatic herbs; near the forts they are often fringed by rows of weeping willows."

The plains of Buttee Kote, Geedee Goshta, Chardeh, Lookhee, and the country skirting the hills, afford good pasturage. The pastoral

Ghilzies bring a great number of camels and sheep to these districts in autumn, and return to Cabul in the spring.

Towns and Villages. The principal towns and villages in the valley are:—

Towns and Villages. Jullalabad,—Sooltanpoor,—Bala Bagh,—Char Bagh,
—Futtihabad,—Neemla,—Gundummuk,—Kirjja,—Herdah,—Besh
Boolag,—Buttee Kote,—Huzarnow,—Busowal,—Lalpoora,—Gurdee,—
Goshta,—Sungiserai,—Kameh,—Shewah,—Killatuk,—Shegee.

On the north of Nungnihar, lie the countries of Noorgul, Koonur, Chughurserai, Bajore, Koshgar, &c. On the west, Lughman and the Ghilzie country; on the south, Bungish and Koorum; and east, lie the Khyber and Upper Momund country.

ROUTES.

Jullalabad to Dukka.

1.

No.	Names of Stages.						Miles.
1.	Summer Kheil,	..	..	..	..	..	7
2.	Buttee Kote,	..	..	..	..	..	13½
3.	Huzarnow, ..	..	..	..	..	..	10
4.	Dukka, ..	..	..	..	..	..	9
							<hr/> 39½

2

1.	Summer Kheil,	..	..	..	..	..	..	7
2.	Chardeh,	..	..	..	..	..	..	14
3.	Busawul,	..	..	..	..	..	..	8
4.	Dukka,	..	..	..	..	..	..	13
								<hr/>
								42

From Jullalabad to Soorkhab.

1.

1.	Futtihabad, ..	..	..	..	..	..	15
2.	Sufaid Sung,	..	..	..	..	..	13
3.	Soorkhab, ..	..	..	..	..	..	10
							<hr/> 38

2

1. Sooltanpoor,	..	..	..	..	..	..	8
2. Futtihabad, ..	..	..	..	..	..	..	7
3. Neemlah, ..	..	..	..	..	..	..	9
4. Gundummuk,	..	..	..	..	..	..	6½
5. Soorkhab, ..	..	..	..	..	..	..	7½

 38
History.

As far back as A. D. 977, we find that Nungnihar was the scene of contention between Sabuctagi, the Tartar, who assumed the title of Nasir-ood-deen, and Jeipal the Brahmin prince. History mentions that their armies came in sight of each other, on the confines of Limgān, now called Lughman, and the present village of Futtihabad is said to mark the spot where a victory was gained by Subuctagi over the Hindoo prince. His subsequent defeat and imprisonment took place at Peshawur.

Sooltan Babur in his memoirs, thus mentions Nungnihar in the year A. D. 1504 :—

“Nungnihar,” he says, “in many histories is written Nekerhar. The residence of the darogha, or commandant of this district is Adinapoor : Nungnihar lies to the east of Cabul, thirteen farsangs of very difficult road. In three or four places there are some very short kotuls, or steep hill passes, and in two or three places, there are narrows or straits ; the Khiralchi, and other robber Afghan tribes, infest this road with their depredations. There was no population along this road until I settled Kuratur below the Kurruksai, which rendered the road safe. The Gurmsil, (or region of warm temperature,) is divided from the Sersil, (or region of cold temperature,) only by the steep pass of Badām Chesmeh. Snow falls on the Cabul side of this pass, but not on the Kurruksai and Lumghanat side ; the moment you descend this hill pass, you see quite another world. Its timber is different, its grains are of another sort, its animals of a different species, and the manners and customs of the inhabitants are of a different kind. Nungnihar has nine streams. Its rice and wheat are excellent ; oranges, citrons and pomegranates are very abundant, and of good quality. Opposite to the fort of Adinapoor to the south, on a rising ground, I formed a Char

Bagh, (a great garden,) in the year 914, (A. D. 1508.) It is called Bagh Vafâ, (the garden of fidelity) ; it overlooks the river, which flows between the fort and the palace. In the year in which I defeated Behar Khan, and conquered Lahore and Dibalpoor, I brought plaintains and planted them there, they grew and thrived ! The year before I had also planted the sugar cane in it, which throve remarkably well. It is on an elevated site, enjoys running water, and the climate in the winter season is temperate ; the garden is charmingly laid out ; to the south lies Soofaid Koh, which separates Bungush from Nungnihar. Nine streams descend from the mountain ; the snow on its summit never diminishes. On the skirts of the hill there are many airy and beautiful situations. On the south of the fort is Adinapoor. The tomb of holy law, the father of Nuh, is in the Toomân of Alishung. In some histories, the holy law is denominated Lamek and Lamekan. The people of the country have a general practice of changing the letter Kâf into Ghain, and it seems very probable that the name Lamghan originated in that circumstance.

“ The Tooman of Nungnihar, Manderam, Dereh Noor, Dereh Kooner, Noorgie, and Cheghurserai, I gave to Nasir Mirza.

“ I marched from Jumdool for the purpose of attacking Bajore.

3d. Jan. A. D. 1519. Having encamped near it, I sent a trusty man to

require the Sooltan of Bajore and his people to submit, and deliver up the fort. That stupid and ill-fated people refused to do as they were advised, and sent back an absurd answer. I therefore ordered the army to prepare their besieging implements, scaling ladders, and engines for attacking the fortress. The preparations having been completed, it was luncheon time when the tower was breached, immediately on which the assailants drove the enemy before them, and entered the tower. The men of the main body at the same time also mounted by their scaling ladders, and entered the fort. By the favour and kindness of God, in the course of two or three hours, we took this strong castle, (Naogee.) As the men of Bajore were rebels to the followers of Islam, and beside their rebellion and hostility, they followed the customs and usages of the infidels, while even the name of Islam was extirpated from among them ; they were all put to the sword, and their wives and families made prisoners. I bestowed the country of Bajore on Khwajeh Kilan.

“In the hill country all the inhabitants are *kafirs*: in Kafirstan grapes and fruits are extremely abundant, and it produces a great quantity of wine, but in making, they boil it. In the hills of this district they have the pine, the jilguzeh, the oak, and the mastic tree in great abundance.

“I embarked on a raft, and passing the Strait of Darounta, landed higher up than Jehan-numai; we went to the Baghi
7th Jan. A. D. 1520. Vafā, which is opposite Adinapoor. Kiam Urdooshah, the hakim of Nungnihar, met us as we landed from the raft.”

On the events of the year 1525, Babur writes, “On the 8th of Sefer, (November 24th) in halting at Gundummuk, I had a severe defluxion,* but by the mercy of God it passed off without bad effects. On Saturday I halted at the Bagh-i-Vafā, where I was forced to wait nine days for Hoomaiun, and the army that was with him; the garden was in great glory, it is a charming place; the few days we staid there we drank a great quantity of wine. On Sunday the 17th, Hoomaiun arrived, that evening we marched, and halted at a new garden, which I laid out between Sooltanpoor and Khwajeh Rustam.

“On Wednesday, we marched thence, when I embarked on a raft, on which I proceeded down the river, drinking all the way till we reached Kosh Goombuz, where I landed and joined the camp.” Babur proceeded to Peshawur, (Begram.)

In the year 1570, Jullaloodeen Mahomed Akbar Badshah, when proceeding from Cabul to India, desired Shumshoodeen Khaffee to build the towns of Jullalabad and Attock, and which were completed in two years. His son Selim, (Jehanghire,) was for some time acting governor of Jullalabad.

The historian, Abdool Kadir Budwanee, in confirmation of the above, states, “On the banks of the Nilah, Akbar Badshah desired the town of Jullalabad to be built: about three coss from the town is the Bagh-i-Sufa, commonly called Char Bagh, formerly known as the Bagh-i-wufa, made by Sooltan Babur, near which was Adinapoor, the place where the governor resided.” The same author says, “That Nungnihar in former times was known by the name of the Joo-i-Shaee.”

During Shah Jehan's reign, that monarch made some additions to the

* A complaint very prevalent in the summer of 1840, among the British Troops at Kujja and Gundummuk.

town. The following is an inscription on a marble slab, taken from an old fort, and placed in the principal *musjid* of the town, shewing that the fort was built by Itimam Khan, in Shah Jehan's reign, A. D. 1638 :—

بحکم شاه جهان اہتمام خان چونہاد بروی سادمت دیرین بنای
خیرمال زاسمان زمان تا اثر بود پیدا مباد خوبی این قلعه در شکنج
زوال حساب سال بنایش زحقل میچستم ندارسید بکوشم بنای فروخ
فال سنہ ۱۰۵۴

In the year A. D. 1735, Nadir Shah sent Sooliman Yeesawul, (stick bearer,) from Cabul, at the head of a mission to Mahomed Shah of Delhi. On the fifth day, Sooliman and his party reached Jullalabad. Abaidollah, the son of Meer Abbas of Kooner, whose power extended over the whole of Nungnihar, desired Sooliman to be slain, and he was killed with much cruelty. Nadir Shah on hearing of the treatment that Sooliman had met with, immediately left Cabul with his army, and marched to Gundummuk viâ Chareekur, Nijral, and Tugore; thence he sent on to Jullalabad, Sirdars Jillayēr and Vyaz, with the vanguard. Abaidollah evacuated Jullalabad, and fled to Kooner: he was pursued by the Sirdars, and fled to Swât. Many of his followers were slain, and his sister and women made prisoners, and brought to Nadir Shah.

The monarch with his main army went from Gundummuk, (where he describes the water to be good, and the air delightful,) to Behai; thence to Jullalabad, where he remained only thirty-one days, his Sirdars mean while having captured Kooner and Bajore. He proceeded viâ Chara to Peshawur, where Naisir Khan, the governor, submitted without making any defence.

To enumerate all the important events which have taken place in this district since that period, would take up too much space. I will only briefly allude to a few of them.

On the 10th of September 1801, Shooja-ool-moolk marched from

Peshawur to attack Cabool. At Heshpan, he found
A. D. 1801.

Mahmood's force, consisting of three thousand men drawn up, the Soorkh Rood being in their front.

Elphinstone thus describes the battle: "Shooja had at this time at least 10,000 men, but they were Burdooranees, and though accustomed

to the battles of their clans, they were strangers to discipline and to regular warfare. Shooja's arms were at first victorious, but his Burdooranee troops eager to profit by the confusion, quitted their line as soon as they thought the victory decided, and began to plunder the royal treasures, which Shooja had imprudently brought into the field. Futteh Khan seized this opportunity, and charging at the head of his Baurikzyes, completed the confusion in Shooja's army; the battle was now decided, and Shooja escaped with some difficulty to the Khyber.

"In the year A. D. 1809, June 29th, Shah Shooja sustained another defeat at Neemla, when opposed to Mahmood Shah
A. D. 1809. and his minister Futteh Khan. Akram Khan, Shah Shooja's prime minister, was slain in this battle. Shah Shooja fled over the mountains south of the Khybur pass to Hisaruk."

On Zuman Shah's defeat near Sireeasp, he fled to the Jullalabad valley, and stopped at Mollah Ashuk's fort, which is on the Chipreeāl rivulet, about 14 miles from the town of Jullalabad, near the Soofaid Koh. "The Mullah received them hospitably, but took means to prevent their escape, and sent off a messenger to Mahmood Shah. Shah Zuman, during his confinement, secreted the Koh-i-Noor with some other jewels in the wall of his apartment, which were afterwards found on Shooja's accession," (Elphinstone.) The poor monarch was blinded on his road to Cabul, by piercing his eyes with a lancet.

On Shah Shooja being restored to his throne, the first step he took was to release his brother Shah Zuman, and soon after Mollah Ashuk, who had betrayed him was apprehended, and suffered the punishment of his perfidy and ingratitude.

When the Baurikzye Khans gained the ascendancy over the Dooranee monarchs, Azeem Khan placed his nephew Nuwab Zuman Khan in the government of Nungnihar, and from the time of Azeem Khan's death, 1823, until the year 1834, the Nuwab enjoyed the entire government collections of the province. Dost Mahomed insisted upon a portion of them being made over to him; this the Nuwab refused. The Ameer collected a force, and marched against him, and on his approach, the Nuwab withdrew his guns to Kameh, and there took up a position near Abdoo Ruhman's fort; negotiations took place between the contending parties. The Nuwab having made some slight sacrifice of his interests, Dost Mahomed returned to Cabool.

The Nuwab then commenced fortifying the town of Jullalabad, the old fortifications were nearly on a level with the ground; a great number of people were collected for the purpose, the work advanced rapidly, but ere a month had elapsed, the Ameer was again on his march to Jullalabad, and the fort was still incomplete. The Nuwab, however, determined to defend it. After three days' resistance, a mine was sprung, the town was taken by assault, and it was given up to plunder. The Nuwab was taken prisoner and displaced from power, and Sooltan-poor, and the transit duties of Cabool were made over to him for his maintenance. Dost Mahomed's brother, Ameer Mahomed, remained a short time in charge of the province. He was succeeded by the Ameer's son, Mahomed Afzool, who was recalled after a few months, and succeeded by his younger brother, Akbar; he continued in charge until the arrival, in 1839, of the British troops. Mirza Aga Jan, a Kazzilbash, was then, on the part of the Shah, appointed governor, and still continues so.

There are topes and extensive ruins to be found scattered over the valley, which if explored attentively by learned antiquarians, would no doubt reward them for their labours.

There are now no perfect buildings of any size, beauty, or antiquity in the valley.

The royal gardens of Char Bagh, Baghwanee, Bala Bagh, Neemla, and Gundummuk, laid out by Sooltan Babur and Alee-muridan, and renewed by Timoor Shah and Shah Zuman, during the Baurikzye rule, were quite neglected.

The Gundummuk garden has been quite destroyed; the fine old plane trees were cut down by Sirdar Mahomed Akbar's order to build the fort of Futtung, at the confluence of the Soork Rood and Gundummuk rivers. The fort would be found strong against Afghan troops without artillery.

There is a *zearut* at Char Bagh, to which Moosalmans and Hindoos go to pray. The former suppose it to be the tomb of Shah Fyzoollah Wullee, the cup-bearer of Mahomed the prophet; the Hindoos, on the other hand, imagine it to be the resting place of Hajee Ruttun, a *fuqueer* of great sanctity and note. There is also a large Hindoo temple in the town of Jullalabad, inhabited by a supposed descendant of Ruttun. Hindoos in great numbers come from Peshawur, and

other places, to make him offerings, which are said to amount to the large sum of 40,000 rupees annually.

In the neighbourhood of Jullalabad there is also Shah Murdan's *zearut*, held sacred under the supposition that Alee, the son-in-law of Mahomed rested there; and in the temple is exhibited a large black stone, shewing an impression of the hand of Alee. A garden is attached to the *zearut*, where a fair is held every Thursday, to which crowds from the town and camp resort. Nazir Hussan, formerly in the service of Nuwab Zuman Khan, is now expending his money on the *zearut*, and garden. The *zearut* was originally raised by Abdoola Khan Khafir, in the reign of Timour Shah.

Of late years, the following persons filled the office of governor of Jullalabad :—

<i>Governors.</i>	<i>In whose reign.</i>
Adool Khan Khafir,	Timour Shah.
Meerdad Khan, Isakzye,	Ditto.
Ghunnee Khan,	Ditto.
Gool Mahomed Khan, Gurdeezye,	Zuman Shah.
Causim Khan, Moghul,	Ditto.
Baba Khan Afshar,	Ditto.
Meer Alee Khan,	Ditto.
Golam Alee,	Ditto.
Shurreef Khan,	Shah Shooja.
Ibrahim Khan, Jumsheeree,	Mahmood Shah
Shehur Dil Khan, Baurikzye,	Mahomed Azeem Khan.
Shukoor Khan, ditto,	Ditto.
Moghul Khan,	Ditto.
Nuwab Zuman Khan,	Ditto.
Ameer Mahomed Khan,	Dost Mahomed.
Mahomed Afgool,	Ditto.
Mahomed Akbar,	Ditto.
Meer Aga Jan,	Shah Shooja.

Weights, Measures, &c.

The land revenue in kind is collected in Tabreez weight, and the money taxes in the nominal Tabreez (Khan) rupee.

Tabreez Weight.

2½	Charuks,	=	1	Mun-i-Tabreez.
100	Mun-i-Tabreez,	=	2	Kharwa-i-Tabreez.
1	Kharwa-i-Tabreez,	=	10	Maunds Hindoostanee,
100	Kharwa-i-Tabreez,	=	1000	Maunds Hindoostanee,

Coin Table.

10	Shahees, ..	=	1	Rupee Khawa.
20	Rupees Khawa,	=	1	Tooman Tabreez.
1	Tooman Tabreez,	=		Company's Rs. 14 9 4.
100	Tomans-i-Tabreez,	=		Ditto. .. 145 5 4.
100	Toomans-i-ditto,	=		Ditto. .. 14,583 5 4.

*Second Notice of some new Bactrian Coins. By Lieutenant A.
CUNNINGHAM.*

When I published my last paper on this subject, I was able to add but one new Prince to our already long list of Bactrian Sovereigns. Through the kindness of several gentlemen, I can now make known no less than eight new names, of which six are pure Greek, and the other two genuine Parthian. In addition to these, I am able to make public a second Copper Coin of Demetrius; and a new Drachma of Azas of a type already known on the drachmas of Vonones.

No. 1.—A round Copper Coin of middle size, weighing 106 grains. This specimen from my own cabinet, and a duplicate in the possession of Lieut. Combe, were originally procured by Capt. Hay; one at Bamian, and the other in the Punjab; but the latter was also said to have come from Bamian.

*Obv.** Bearded head of Hercules to the right, with the club behind. The sketch was made from a sealing-wax impression, on which I did not observe the club: it is, however, quite distinct on the coin.

Rev. Hercules naked, standing full face, holding his club, and lion's skin on his left hand, and crowning himself with his right hand. Greek legend in two perpendicular lines ΒΑΣΙΛΕΩΣ ΔΗΜΗΤΡΙΟΥ
“(Coin) of King Demetrius.”

* “The sketch of No. 1 was made from a sealing wax impression which had become flattened on its way from Bamian. The coin itself is now in my own possession, and the beard is perfectly distinct upon it; as well as upon the more beautiful duplicate in Lieutenant Combe's Cabinet.”

No. 2.—A round Copper Coin of large size, in the possession of Lieut. Combe, who obtained it from Capt. Hay. This piece has already been published, but as the sketch given in the *Journal*, No. 97 was very imperfect, I thought that the publication of a more distinct outline would be a service rendered to all lovers of numismatic science.

Obv. An Elephant's head to the right, with a bell suspended from its neck.

Rev. The Caduceus—Greek legend in two perpendicular lines as on No. 1.

On this highly interesting piece, we see the Elephant's head, which on the silver coins forms only the King's head dress, occupying the whole field of the coin. It is no doubt an emblem of the conquests of Demetrius in India.

No. 3.—A square Copper Coin of small size, in the possession of Lieut. Combe.

Obv. Apollo standing naked, holding in his left hand a bow which rests on the ground, and in his right hand an arrow with the point directed downwards. Greek legend on three sides ΒΑΣΙΛΕΩΣ ΜΑΥΟΥ “(Coin) of King Mauas.”

Rev. A tripod. Ariano-Pali legend on three sides *Maharajasa Moasa*, “Coin of the Great King Moas.” This is the only coin of Moas which has *Maharaja*, his title always being *rajadiraja*.

The name of this King has hitherto been read as Mayes; which is in accordance with the Greek version: but the Pali gives *Moasa* unequivocally; and as the name is not a Greek one, we can have no hesitation in preferring the native reading. The Greek would more properly have been rendered ΜΩΟΥ.

No. 4.—A square Copper Coin of large size, weighing 143 grains. Five other specimens of this coin are in existence in different cabinets. They are all found between Peshawur and the Jehlum.

Obv. Apollo standing naked, inclined to the left; holding in his left hand a bow which rests on the ground, and in his right hand an arrow pointed downwards. Greek legend on three sides ΒΑΣΙΛΕΩΣ ΕΠΙΦΑΝΟΥΣ ΣΩΤΗΡΟΣ ΣΤΡΑΤΩΝΟΣ “(Coin) of the King, the illustrious Saviour Strato.”

Rev. A tripod surrounded on three sides by dotted lines. Grecian monogram in the field to the left, forming ΔΗΜΗΤ, probably for

ΔΗΜΗΤΡΙΑΣ, the place of mintage. Ariano-Pali legend on three sides *Maharajasa téjamasā tádatasa státasa*. “ (Coin) of the Great King, the illustrious Saviour Strato.”

The title of Epiphanes, which now appears for the first time on a Bactrian coin, is rendered in Pali by *téjamasā*, which I believe to be the Pali form of the Sanskrit *tejomayasya*; तेजोमय means made of splendor. Professor Lassen however thinks that the affix is the Sanskrit मत्, abbreviated into मः *téjama* would in this way be the same as the Sanskrit तजोवत् “possessing light.”

No. 5.—A square Copper Coin of middle size in the possession of Lieut. Combe. A duplicate in my own cabinet weighs 122 grains.

Obv. Male head diademed (and perhaps bearded) to the right, with a club over the shoulder. This may be either the head of Hercules himself, or of the king as Hercules. Greek legend on three sides ΒΑΣΙΛΕΩΣ ΣΩΤΗΡΟΣ ΣΤΡΑΤΩΝΟΣ “ (Coin) of the Saviour King Strato.”

Rev. Victory to the right holding out a chaplet in her right hand. Grecian monogram in the field as on the last. Ariano-Pali legend on three sides *Maharajasa tádatasa státasa*. “ (Coin) of the great King, the Saviour Strato.”

Dr. Chapman has a coin of similar type to the preceding, but with the addition of ΔΙΚΑΙΟΥ in the Greek legend; and of *dhamikasa* in the Pali: and this is the identical legend which is found on the reverse of Dr. Swiney's coin of the “godlike-minded Queen Agathoclea.” There can be no doubt therefore that she was the Queen of Strato, Dikaius, Epiphanes, Soter.

No 6.—A round Plated Coin of small size in my own possession.

Obv. Bare and beardless head of the King to the right, resting upon what would appear to be a crescent. Greek legend much obliterated βασιλε ΩΣ ΣΩΤΗΡΟΣ * * * * * “ (Coin) of the Saviour King * * * * *”

Rev. A rude figure of Minerva Promachus to the left. Ariano-Pali legend * * * * *tádatasa strátasa*. “ (Coin) of the * * * * the Saviour Strato.”

I am uncertain whether this coin should be attributed to Strato or to Hippostratus. The type of Minerva Promachus, and the bust, which are found on a true drachma of Strato in the possession of Mr. E.

Thomas, C. S. would seem to give it to the former prince; but the *St.* of the Pali is so immediately under the figure of Minerva, that it would appear not to be the commencement of the name.

No. 7.—A Seal in the possession of Mr. V. Tregear. I have introduced this seal here, because its subject is similar to the type on the obverse of the next coin.

No. 8.—A round Silver Drachma, weighing 37 grains, procured by Lieut. Combe at Peshawur.

The original owner must have kept impressions of the genuine coin; for since Lieut. Combe's acquisition of it, I have obtained a silver forgery of this coin from Peshawur, which has evidently been cast from an impression of the genuine coin. The foregoing weighs 49 grains, and is considerably larger than the original coin. This is even evident from an examination of the cast alone, on which a circular line is clearly distinct, running through the letters of the title in the Pali legend; which are thus made only half letters, while there is more than sufficient room for them upon the forged piece.

Obv. An ancient giant full front, with snaky legs, which curl upwards on each side. Greek legend around the piece ΒΑΣΙΛΕΩΣ ΕΥΕΡΓΕΤΟΥ ΘΑΛΕΦΟΥ “(Coin) of the king, the beneficent Telephus.”

Rev. A draped male figure standing to the left, his head crowned with rays, and holding in his right hand a spear: to the right a clothed female figure with a crescent on her head. These figures are no doubt the Sun and Moon. Greek monogram in the field to the right, forming ΔΙΚ. Ariano-Pali legend around the piece, *Maharajasa* * * * *kramasa Teliphasa*. “(Coin) of the great king, the beneficent Telephus.”

The Pali version of Euergetes is unfortunately too imperfect to be made out satisfactorily, it ends however with *karmasa*; and *Su-karmasa* would be “well-doer,” a literal translation of the Greek-Euergetes: but there are three letters before *Karmasa*, of which the first looks like a *p*. *Parankarmasa* would be “best-doer,” and might for an oriental exaggeration of Euergetes.

No. 9. A square Copper Coin of middle size, in two pieces, from the cabinet of Mr. W. J. Conolly, C. S.

Obv. The Olympian Jupiter seated in a high-backed chair, his right hand extended to the right. Greek legend on three sides ΒΑΣΙΛΕΩΣ

ΣΩΤΗΡΟΣ ΙΠΠΟΣΤΡΑΤΟΥ. “ (Coin) of the King, the Saviour Hippostratus.”

Rev. A horse to the left. Grecian monogram in the field. Ariano-Pali legend on three sides, *Maharajasa tádarasa jaya (dharasa) Hi)pástata*. “ (Coin) of the King, the Saviour, the victorious Hippostratus.”

Dr. Chapman possesses a large square copper coin of this Prince, of a different type, having a giant with snaky legs as on the drachma of Telephus. Three specimens of a third type of Hippostratus are likewise known in Dr. Chapman's, Lieut. Combe's, and my own cabinets, having Apollo and the tripod, as on the coin of Strato No. 4. On all of these coins we find the title of Soter only; but on the coin sketched in the plate, the Ariano-Pali legend gives the commencement of the title of *jayadharasa*, which is used indifferently for the Greek Nicator, and Nicephorus.

No. 10. A round Drachma of Azas in my own possession. I have introduced this coin here, because the type of the reverse is different from any yet described on the coins of this Prince. Jupiter appears standing full front, grasping a thunderbolt in his right hand, and holding a long sceptre or a spear in his left hand. This type is the same as that of the drachmas of Vonones.

No. 11. A round Copper Coin of middle size, in the possession of Colonel Stacy. A sketch of this piece has already appeared in the *Bengal Journal*, vol. viii. for April.

Obv. King's head diademed and bearded to the left; the hair arranged in large massy curls; the neck and shoulders draped and ornamented with strings of jewels. Corrupted Greek legend, as read by Colonel Stacy, ΒΑΣΙΛΕΥΣ ΒΑΣΙ (λεων μεγ) ΑΣ ΠΑΚΟΡΗΣ. “ The great king of kings, Pakores.”

Rev. A winged Victory to the right, holding out a chaplet in her right hand. Ariano-Pali legend *Ma(harajasa) rajadhirajasa mahatasa Pakorasa*. “ (Coin) of the great king, the king of kings, the mighty Pakores.” The coins of Gondophares or Undapherras bear precisely the same type, a bust and Victory; but on the coins of Pakores, there is a remarkable change observable in the Pali characters, each letter having an angular foot-stroke added to the left. These ornamental additions to the Pali characters prove that the coins of Pakores are of a later date than those of Gondophares and of his nephew Abdgases, on which the

Pali is of the simple form. The Greek legend too which is in the nominative case, betrays an era certainly later than the earlier coins of Undapherras, and about contemporary with the coins of the nameless Prince ΒΑCΙΑΕVC ΒΑCΙΑΕΩΝ CΩTHP ΜΕΓΑC.

If this coin is to be attributed to the Parthian Pakores, its date will lie between A. D. 90—107 : but I incline to believe that our Pakores whose coins are found in Sistán, the, ancient Drangiana, was a different Prince. Persian tradition is uniform in its mention of two distinct Parthian dynasties, the Ashkanians, and the Ashganians, who were contemporary with each other. Ashg, the founder of the Ashganians, was a descendant of Kai Kaoos ; and Khoosroo, the grandson of Ashg, was reigning when our Saviour was born. This will make the date of the rise of the Ashganians about 30 B. C. To the founder of the Ashganians I attribute the following coins of copper.

1st *Obv.* A horseman to the right. Greek legend ΒΑCΙΑΕVONTOC ΒΑCΙΑΕΩΝ ΔΙΚΑΙΟΥ ΑΡCΑΚΟΥ. “Coin of the governing over kings, the just Arsaces.”

Rev. Type obliterated. Ariano-Pali legend *Maharajasa rajarajasa mahatasa Ashshakasa tádatasa.* “(Coin) of the great king, the king of kings, the mighty Ashshak, the Saviour.”

2nd *Obv.* A horseman to the right. Greek legend imperfect ΒΑΣΙ ΠΥ ΑΡCΑΚΟΥ. “(Coin) of the king of kings, * * * * Arsaces.”

Rev. Male figure to the left, holding out a small figure (apparently Victory) in his right hand. Ariano-Pali legend imperfect. *Maharajarajasa ? * * * A (shshakaia.)* “(Coin) of the great king of kings, * * * * Arsaces.”

I have in my possession the coins of two or three other Princes of this dynasty, but the names are unfortunately too much obliterated to be satisfactorily decyphered. One of them appears to be Orthamasdes.

I have now made known the names of three Greek Princes, Strato, Telephus, and Hippostratus ; and of two Parthians, Arsaces and Pakores. To these I will add two Grecian kings, Dionysius and Nicias ; and one Grecian Queen, Calliope, to make up the eight new names which I mentioned in the beginning of this account.

Dionysius. A square Copper of middle size, formerly belonging to

Captain Hay, but now in the possession of Lieut. Combe. There is also a duplicate in Dr. Chapman's cabinet, which I have not yet seen.

Obv. Apollo standing naked as on the round copper coins of Apollodotus. Greek legend on three sides, ΒΑΣΙΛΕΩΣ ΣΩΤΗΡΟΣ ΔΙΟΝΥΣΙΟΥ ; “ (Coin) of the king, the Saviour Dionysius.”

Rev. A tripod. Ariano-Pali legend imperfect, * * * * *sa Dianisayasa*. I am by no means confident of the correctness of the Pali version, for the coin was in a very imperfect state. Dr. Chapman's coin is, I believe, in much better preservation ; and I hope hereafter to lay before the public a sketch and description of his duplicate.

Nicias. A square Copper Piece of middle size, in the possession of Lieut. Combe.

Obv. Bust of the king diademed and beardless to the . Grecian legend on three sides, ΒΑΣΙΛΕΩΣ ΣΩΤΗΡΟΣ ΝΙΚΙΟΥ “ (Coin) of the king, the Saviour Nicias.”

Rev. A horseman to the right, as on the silver coins of Antimachus. Ariano-Pali legend on three sides, *Maharajasa tādātasa (Ni) kiasa* : “ (Coin) of the great king, the Saviour, Nicias.”

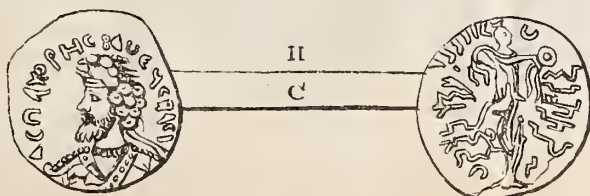
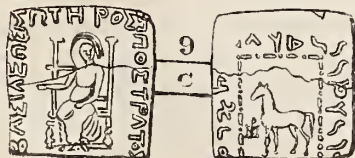
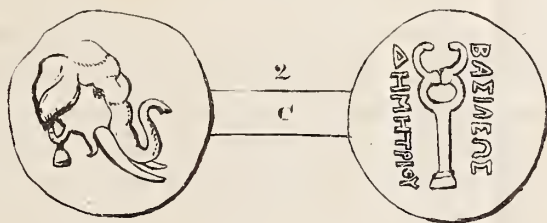
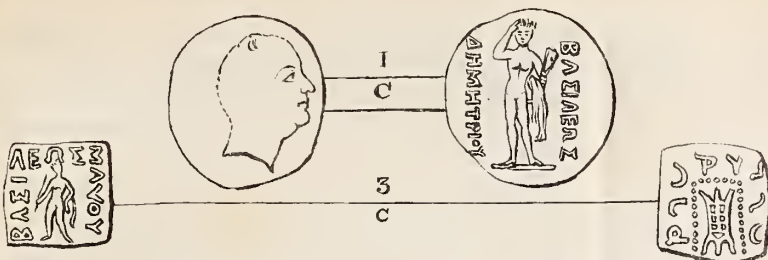
Calliope. A round silver Drachma. Two specimens, one in the possession of Lieut. Hasell ; the other in my own cabinet.

Obv. Two heads of the King and Queen to the right. Grecian legend, ΒΑΣΙΛΕΩΣ ΣΩΤΗΡΟΣ ΕΡΜΑΙΟΥ ΚΑΙ ΚΑΛΛΙΟΠΗΣ “ (Coin) of the King, the Saviour Hermæus, and of Calliope.”

Rev. A horseman to the right as on the silver coins of Antimachus. In the field below a Grecian monogram forming ΝΙΦΑΝΔΑ Niphanda, the town where the coin was minted. Ariano-Pali legend, *Maharajasa tādātasa Hermayasa Kaliyapaya*. “ (Coin) of the great King, the Saviour Hermæus (and) of Kaliyapa.”

This is the third Græco-Bactrian Queen, with whom the coins have made us acquainted. The only point particularly deserving notice, is the feminine termination of the Pali Kaliyapaya ; which proves that the Pali was subject to the same inflections as the Sanskrit.

I would have added descriptions of a Tetradrachm and of two Drachmas of Diodotus ; but a notice of a gold Didrachma of this Prince has already appeared in the *Numismatic Journal of London* I intended also to have mentioned the numerous new types of princes already known, which have been sent to me by several kind friends ; but as I am engag-



ed upon a large work on the "Coins of Alexander's Successors in the East," I think it needless now to say more than that the new types, which will appear in that work, are more than equal in that number to those already known.

A. CUNNINGHAM.

On the Gem and Coins, figured as Nos. 7 and 8 in the preceding Plate, and on a Gem belonging to the late EDWARD CONOLLY. By the EDITOR.

I have already, on more than one occasion, been enabled to place in juxtaposition, (though but with a casual remark,) relics of antique art found in Central Asia, and similar remains discovered in Europe; the former bearing too remarkable an affinity to the latter to allow of our doubting, that they were the work of a people who had attained the same standard of excellence in arts and sciences, who thought alike on matters of religion, and who were ruled and influenced by similar superstitions. I have been much impressed with this fact by other casual discoveries of a like nature, which have in a manner forced themselves on me, but which, as isolated, and perhaps to many, trivial instances of resemblance, hardly merited a separate and individual notice. There is, however, I am certain, a new and most interesting field of investigation open to the Antiquary, in the comparison of such identities and resemblances. Time, opportunity of research, and a sound knowledge of Asian antiquities are required for the conduct of such enquiry; and one who possesses none of these indispensable requisites, can do no more, when he stumbles on some startling fact, than cast the glimmer of his single discovery upon the darkness of an untried subject, in order to tempt the capable to venture on the novel path which he himself cannot follow. It remains to be seen, whether the instances which I will now lay before my readers, may not encourage the competent investigator to turn his mind to the task, with strong hopes of success in the effectuation of singular discoveries.

My friend Lieut. Cunningham has, with his usual care and ingenuity, taken occasion to illustrate by a gem in the possession of Mr. Tregear, the singular obverse of the coin of Telephus Euergetes, No. 8 of the preceding plate. The singular impression of this gem, used as the

seal of a letter addressed to me by Mr. Tregear, had already attracted my attention. I had written to him on the subject of its place of discovery, and I had ascertained by reference to sufficient authorities, that the "ancient giant with snaky legs," as Lieut. Cunningham so accurately describes it, was an emblem of Abraxas. The Ebermayer collection of gems, as illustrated by Bayer, has no less than eight similar, or nearly similar gems: six of these represent, *a giant with a whip in the left hand, a shield on the right arm, the head of a cock*, (the head in Tregear's gem, has the horns of a stag, as has one of the Eber. gems: it is apparently human in the coin of Telephus,) *and snaky legs*: the attitude is in all the same; the two other of these gems in the Ebermayer collection differ, by having the head of a lion, and of a hawk instead of a cock. My note book gives me the following abstract (from Tennison's Idolatry, which I have not at hand for reference) of the obscure and singular worship of this deity.* "Abraxas was, according to the Basilideans, a visionary sect, which flourished in the second century, (taking their name from Basilides of Alexandria, their founder,) the sacred name of the author of the Cycle of 365 days, expressed in the value of the letters composing it according to the numeration of the Greeks.

$$a \ 1. \ \beta \ 2. \ \rho \ 100. \ a \ 1. \ \xi \ 60. \ a \ 1. \ \varsigma \ 200 = 365.$$

It was the synonym of Abracadabra, a God worshipped by the Syrians, the same who is expressed by the emblem of a year (a circle) with the letters of his name triangularly disposed within it." It was essentially a Solar or Mithraic system of worship.

The learned and acute Bayer, in his illustration of the Ebermayer gems, observes of the Basilideans, that they and others who inclined to their doctrine, pretended to inscribe the planetary emblems, and their powers on gems and metals. "Basidiliani, aliique eorum sectatores, confidunt se programmata siderum, et eorum vires gemmis et metallis insculpere posse." (Gemmarum Thesaurus, p. 210. cap. 432). This statement he supports by numerous authorities. Now if we have before us in Lieut. Cunningham's plate, both a *gem* and a *coin* inscribed, as I am prepared to shew they are, with emblems of the solar power and influence, (confirming Lieut. Cunningham's sound suggestion as to the

* The original authorities regarding this sect are, Tertullian, "De Ræscriptionibus," Hieronymus, Augustin, and Irenæus.

character of the human figures on the reverse of the coin,) have we not discovered a singular clue to the religious opinions of those in whose time they were executed, and what is more valuable, have we not obtained collateral evidence as to the era of the recently known Telephus Euergetes?

The erudite commentaries of Bayer, upon each of the gems above alluded to, run to too great a length, and touch upon too many details to render it necessary for my present enquiry that I should extract the whole of them. As my object is to shew the solar character of the emblem of Abraxas, and its identity with the figures on the coin and gem before us, I will extract his description of, and his notes upon, the gem, No. 438 of the Ebermayer collection, (Gem. Thes. p. 215), in which the solar attributes are described almost as we find them in Mr. Tregear's gem.

"Monstrum capite galli, trunco corporis humano, pedibus in serpentes duos desinentibus qui se reflectunt, scutum habens una manu, signatum literis $\text{IA}\Omega$, altera flagellum, virtutem habere creditum est contra inimicos, gestantemque reddere victorem; ad venena valere et sanguinem stringere; uti apud Commillum Leonardem, legimus.

GALLUM $\text{ἱερὸν ἡλίου ὄρνιθα}$ esse, et mentiore solis ortum, testatus Pausanius, lib. v., et Plutarchus, de Pythiæ oraculis.

SCUTUM et FLAGELLUM significat, Abraxam suos credulos defensurum esse, et scuto protecturum et adversantes flagello castigaturum; et ideo ille pectus thorace tectum.

Pedes Anguinos, Macarius refert ad ortum indicandum; quia nempe Mithras sicut et Ericthionius, vel in lapide, vel in terra, de solo aestu libidinis sunt generati. Gigantes etiam serpentipedes fingebantur a veteribus, at diis insultantium miserabilem insolentiam deriderent. Conf. Macrobius. lib. i. Saturn apud Chifletium in Abraxa Proteo, p. 38."

With the exception of the letters $\text{IA}\Omega$, we have in our gem the correspondent emblems with those occurring in the one above described, and I have extracted Bayer's annotations on these ordinary attributes, because given at length with the gem No. 439: our gem has, however, one extraordinary additional symbol, imperfectly given in the lithograph, but perfect in the impression of the gem now before me, taken from a letter of Mr. Tregear's; viz. the stag's horns on the head of the cock. Our gem is in fact a facsimile, so far as figure is concerned of No. 443,

in the Ebermayer cabinet, with the difference, that the head of Abraxas in ours is turned to the right instead of the left. Bayer, and other annotators, most justly see in this extraordinary symbol another solar allusion, as if the Basilideans laboured to crowd every possible Mithraic emblem into their type of Abraxas. “*Ramos cervi appositos Chifletius non male censet, ut solis symbola omnia in unum cogerent Basilidiani. Cervus enim vivacissimum in primis animal; obid soli, vitæ principia excitanti, sacrum.*” (Gem. Thes. p. 220.)

IAΩ were with the Basilideans the letters expressing the Supreme Being,* resident in the highest heaven. The indistinct head in the coin leaves us in doubt, as to the exact character of this part of the figure; it is enough to know that the hawk, the cock, and the lion are equally employed as Mithraic emblems in the compound form of Abraxas, the lord of the Solar Cycle, as shewn in instances already noted, and that it is immaterial as to the general meaning of the figure, which of these be employed to complete the mystical shape. Now this alternative use of common symbols being ascertained, and the figures on the reverse of the coin having a directly Mithraic character, I should be inclined to consider the form on the obverse as not the less Basilidean, because of the (apparently) human head which surmounts it. Bayer applies the term “*Abraxea Mithriaca*,” to one of the Abraxead gems, (No. 438), which he describes, and such I conceive to be the symbolic effigy on the coin. The “*snaky legs*” are the constant attribute of Abraxas; the human head would not be inappropriate to the lord of the Cycle of 365 years in his directly Solar, or Mithraic character. The *shield* and *scourge* are not less emblematical of the solar† disk, (the “*clypeum solis*” of Ovid) and of Apollo *Auriga*, than of the minatory and protective power of Abraxas, a Mithraic form of the Deity; while the *serpent* is as observed in the above extract, directly referable to the generative power of the great luminary. Nothing is more natural than that the latter Grecian potentates of Western Asia, surrounded by the professors of a Mithraic belief, should have in part admitted the

* “*Deum Mosis appellatum IAΩ unde vox Jovis.*” Diodorus Siculus, Bibl. Hist. lib. i.

† “*Corpus Solare seu discus solis in Libro Phark Gj. vocatur سمرسجاد i. e. Pelta Nigra, seu Clypeus niger; idque propter rotundam formam.*” (Hydè's Hist. Religionis Veterum Persarum, cap. iv.) This invests still more closely Abraxas with a Mithraic character.



Basilidean doctrines, or a modification of them; and one is perhaps the less surprised to find Telephus, *the beneficent*, acknowledging in the generative and preservative influence of the sun, a principle of good, which his name would lead us to conclude, he in particular professed the practice of.* That a general tendency to acknowledge the Mi-

* I do not like to leave this subject without a few words regarding the Inscriptions on the Basilidean gems in the Ebermayer collection. Mr. Tregear's Basilidean seal is destitute of letters, but others may be discovered bearing characters, and to facilitate investigation, I will, as Bayer's Thesaurus is excessively rare, copy in this place the different words found on the gems figured in his book. I should premise, that all the words are written "*litteris inversis*," or from right to left, which will prove a key to future discovery, should we be fortunate enough to recover further specimen of these interesting relics.

Ebermayer Gems, No. 437. Abraxas; on the reverse, : ΑΗΟΥΒΑΧ : ΑΗΙΑΦΟΡΟΡΠ : ΑΗΑΝΑΝΑ : ΑΗΑΦΑΡ : ΑΗΙΡΥΟ : ΑΗΑΡΒΑΓ : ΑΗΑΧΙΜ.

These names are placed in the gem one above the other, beginning from the right, being the names of the seven angels, *Michael, Gabriel, Uriel, Raphael, Ananiel, Prosariel, and Chabsael*, of whom, or of their synonims in the etherial world, "the masters of the seven stars." Bayer gives in the following abstract the Basilidean creed:—

"In nominibus quidem angelorum, quos Trithepines intelligentio vocat in *tractatu de Septem Secundis*, non conveniunt annotante discrimen laudatissimo Jul. REICHEL, N. 39. p. 48-49: quod mirum nemini videbitur; siquidem nec Saturnilo cum Basilide condiscipulo conveniebat, qui apud Epiphanium hæresi 23, angelos, agebat, a superiori virtute descibisses ex quibus septem mundum, et quæ in mundo, sunt comprehensa, condiderunt, ejusque mundi suam quemque angelum partem divisione sortitum, *Cassiel* orbem Saturni; *Sachreel*, Jovis; *Samuel*, Martis; *Michael*, Solis; *Ananeel*, Veneris; *Raphael*, Mercurii; *Lunæ*, itidem, *Michael*." (p. 219.)

Eber. Gems, No. 438. Abraxas, the scourge, and shield in the right hand, his left on the head of a man, kneeling, and naked; below him the sacred name written ΨΑΙ; behind the kneeling figure ≡ΔΔΑΒΑΙ, of which Bayer makes CABAΩ⊙⊙≡ΟΣ; on the reverse a lion, (Mithraic emblem of the sun,) a crescent, and seven stars.

Eber. Gem. No. 439. Abraxas: on his shield Α Ι: on the reverse.

Ψ

ΙΑΒΝ: ΟΥΟΤΝ: ΟΥΟΑΡΑΨ: ΨΙΑΡΑ: ΑΛΑΤ.

These words are placed one above the other beginning from the right, the dots between them merely mark the termination of a line. Bayer calls them Ægyptian, and translates, "*summo marti omnia vincenti*."

Eber. Gems, No. 440. Abraxas: about him the letters ΝΟ≡ΦΟ on the reverse ΑΖΑΖ, an abridged form perhaps of Abraxas.

Eber. Gems, No. 441. Abraxas: above him, (but inversed,) the words ΙΟΥΙΟΥ ΩΙΟΥΝΥ ΥΟΥΩΩ ΩΝΙΟΥ, which Bayer translates "*Domini fortitudo æterna*," below him ΙΑΩΑΗΛ (inversed) translated "*Angelus Domini*."

thraic Abraxas did prevail among the contemporaries of Telephus is sufficiently shown by the occurrence on a coin of Hippostratus, as noted by Lieut. Cunningham, of a figure having the most striking of the Abraxead attributes; I am the more inclined therefore to believe that the present discovery will to further illustration of the presence of a

Basilidean worship, the types of which have hitherto been inexplicable on the coins which present them.

Another, and a very curious instance of analogy between the usage and superstitions of the ancient inhabitants of Khorassan and the classic nations of Europe, is exhibited in the annexed plate. The figure No. 1, is a magnified drawing of the gem, (No. 2,) placed below it. It is one of a set of impressions sent to me by the late Edward Conolly, who was killed in action in the Kohistan near Kabul. The drawing is faithfully copied from his own, which is accompanied by these remarks:—

“As the original of this is very small, a drawing on a larger scale is forwarded of the Inscription. We cannot tell whether it be Syriac, or what; the letters seem to be — (illegible) and to bear no resemblance to Pehlevi. The unavoidable scantiness of our marching libraries must serve,” he observes further on, “as excuse for these meagre, and unimportant notes.”

I was discouraged from publishing a plate of the impressions of the gems which accompanied the above, from an idea that these would prove of little interest, from the impossibility in most instances of drawing more than conjectural inferences from their subjects. Looking

Eber. Gems, No. 442. Abraxas: a figure of Mars upon his head; $\text{IA}\Omega$ below him; on the reverse $\text{IA}\Omega \text{ ABPAXAS}$, inversed.

Eber. Gem, No. 443. Abraxas: with the addition of stag's horns, of which Bayer gives a solar allusion to seven stars below him: $\text{IA}\Omega$ on the shield; the words (inversed) PAIN XIOIOIOX about him. (?)

Eber. Gem, No. 444. Abraxas: lion-headed with a sword in place of the scourge: on the reverse the word $\text{\Gamma I \Gamma A N T O P H K T A}$, (inversed) translated, “*fortitudinis martiæ, et gigantæ.*”

Other Basilidean emblems occur on gems in this collection, but none but those of Abraxas. Should gems be found of a similar character in Central Asia, these hints may lead to their identification.



at them, however, as I often did, in the hope of chancing upon some plausible theory regarding them, I remembered to have observed in a small illustrated edition of Virgil, (Knapton, and Sandby, London, 1750, 2 vols. duod.), which is I believe rare, the representation of a gem, having a subject almost similar to that of Conolly's, *a hand holding an ear*. On referring to the book, I found the gem I was in search of, Pl. VII. Vol. I., the original being in the Florentine Museum.* The only very marked difference observable between the gems is that the Oriental artist has added to the lobe of the ear, what is apparently intended for a massive ornament; the relative position of the hands in the two gems varies slightly, but there can be no doubt that the sentiment is identical. The meaning of the sign cannot be better given than by extracting Faber's Notes upon it, (Fabri Thesaurus, in voc. *Auris*.)

Aurem vellere : **erinnern ermahnen warnen** G. *avertir reprimander*. Virg. ecl 6.3.

“ ————— Cyntlius aurem

Vellit & admonuit ;”

Sen, 4 de Benef. 36. “Aurem nuhi pervellem,” **Ich will mirs hinter das Ohr schreiben** G. Je m'en souviendrai en tems et lieux. Tractum ab attestantibus qui attestanti imam auriculam tangebant, cum hoc verbo, “Memento.” Propterea quod auris memoria sacra sit, ut ad Virg. l. c. Servius annotat. Plin. 11. 45 “Est in aure ima memoriæ locus quem tangentes attestantur.” Ac vidisse se Muretus 1 Var. Sect. 12. 5, testatur veteres nummos æreos, in quibus viri duo insculpti erant, quorum unus alteri aurem vellebat; in orbem autem scriptum erat. MNHMONEYE.—“ (Fab. Thes. vol. i. p. 281.)”

It is indeed a curious fact to find a symbol, which Virgil alludes to and Pliny explains, represented on a gem found in Khorassan, and that with a degree of graphic fidelity not unequal to what is displayed in one of the precious relics of the Florentine Museum, yet illustrated by the illegible characters of an unknown language! The most interesting point is of course the occurrence of these characters in conjunction with a sign to which the word they form must have distinct explanatory reference, and but one of two inferences can be drawn; either that the word MNHMONEYE occurs written in these characters on the gem, or

* The note in the work I cite from is, “*Gemma ex Museo Florent. Tom. 2. Tab. 22. in qua manus aurem imam vellens, Spect. ecl. 6. v. 3.*”

that a corresponding admonition to connect this symbol with the memory of a duty, or of an obligation, is conveyed by them in the language, whatever it was, of which they were the vehicle. My readers will observe, that I have not given these letters in the plate of the gem in its natural size, and I much regret my inability to do so; it is owing partly to the lithographer's having failed to copy them with exactness, and partly to the annoying fact, that none of the four impressions which I have of the gem, contains the whole inscription in perfection. The gem, like many of those found in Khorassan and Afghanistan, is cut on a convex surface, which enhances the difficulty of distinguishing any marginal impressions, and the wax on which poor Conolly has taken it off, is invariably of the worst description. Thus it is only by taking the characters piecemeal from the several impressions, that I can verify the reading given on the enlarged drawing of the original. The letters are not dissimilar to those found on other gems from Afghanistan, impressions of which are in my possession, and the most remarkable of which are of a decidedly Mithraic character.

It is idle almost to hazard conjecture, as to the language which was expressed in these letters. A sort of affinity may be perhaps discovered between the Syriac character and this, but in the present stage of our ignorance, nothing can be advanced on the subject beyond the vaguest conjecture. We have established, however, that the language, whatever it was, either allowed of the adoption of Greek words into it, which were expressed in its peculiar character; or that, adopting Greek habits and superstitions, those who spoke this language translated into their own tongue the apothegms or admonitory expressions, which accompanied particular symbols in vogue among a Grecian, or *Grecised* people. Should circumstances admit of further research, this clue to possible discovery will be valuable. In the mean time, not even the most ingenious and acute could, I fear, derive definite conclusions from the meagre facts before us. We have, however, seen a Champollion unravel the mysteries of Ægyptian hieroglyphies; a Prinsep decypher by a comparative process of, at first, apparently hopeless difficulty, the unknown characters of more than one unspoken language; a Rawlinson verify the accounts of the Father of History, by his reading of the cuneiform records of Persepolis: hence therefore I confidently believe that, should further material for the comparison on a scale sufficiently extensive be discovered in this unknown character, the elucidation of

many historical difficulties by the ascertainment of the value of the letters, and the consequent determination of the language they expressed, is very possible, and is very much more than probable.

My own task is accomplished, if by the brief remarks above made, and by the curious analogies brought forward, I shall have succeeded in awakening the attention of competent enquirers to the subject. Few, it is true, have opportunities in this country of devoting time to the study of such subjects. Many though have the means of forming collections, which however indiscriminately made, will furnish the material and the means for enquiry. I sincerely trust, that no man able to appreciate the importance of such an investigation, and more particularly, that no member of the Asiatic Society, will fail to avail himself of every occasion to further it.



Observations on the Genus Spathium. By M. P. EDGEWORTH, Esq.

Happening to meet with two species of *Aponogeton* (Roxb.) in this neighbourhood, I compared them with the generic character of *Spathium* in Endlicher's *Genera Plantarum*, to which they are referable. I observed that he describes the embryo as unknown, and therefore, especially directed my attention to that point. By Endlicher, the genus is referred to *Saurureæ*, I am therefore not a little surprised on examining the *S. undulatum*, to find it distinctly monocotyledonous, with a large fleshy cotyledon embracing a plumule of unusual size and development. On examining the seed of *S. monastachys*, however, I found a very different structure, a homogeneous mass, in which I could find no trace of an embryo; but on causing the seeds to germinate,* which they do freely in water kept in a cup, I discovered that this homogeneous mass is in reality the cotyledon and the plumule, which after an interval of some days developes itself through a slit at the base of the horn-shaped cotyledon.

The *Sp. undulatum* likewise germinated readily. The only other point to be noticed now, is, whether these two plants are referable to one and the same genus, while so marked a difference exists in the embryo. The one with the plumule of unusual size, (equalled only by the development of that part in *Nelumbium*,) and the foliaceous cotyledon—the other with its plumule invisible even at the commencement

* I owe this experiment to Dr. Falconer's kindness.

of germination, and its solid cotyledon—while there are the minor differences of the relvaceous foliage and caducous bracts of the former, as contrasted with the herbaceous foliage and persistent bracts of the latter. There is, moreover, a slight difference in the pollen of the two plants, that of the former being exactly and acutely elliptic, and assuming a globular form under the influence of acid or iodine; that of the latter gibbously ovoid, and not influenced in the same manner by the iodine solution or acid.

From the description of *Aponogeton pusillum* in Roxburgh's F. I. and the section of the fruit of *A. echinetum*, in his Cor. Plants, t. 81, I should judge that they would have the same characteristics as the *A. undulatum*. They may perhaps be found to be intermediate, in which case the two species I have examined may be fairly considered as the extremes of a single genus. From the general habit, and the position of the bracts of *Endlicher* resembling that of half a floral envelope, for which reason I term them sepals in the description, the place of this genus would appear to be next to *Potamogeton* among the *Naidés*.

I have subjoined an amended generic character, and fuller descriptions of the two species I have examined.

Spathium Loureiro. Endlich. Gen. 1826, p. 267.

Floris hermaphroditi, in spadice cylindraceo pedunculato spathâ monophyllâ caducâ cincto spiraliter dispositi sessiles. Sepala duo petaloidea sub-opposita. Stamina sex, hypogynæ; filamenta libera subulata patentia persistentia, antheræ bilocularis lateraliter dehiscentes.

Ovaria tria (vel. 4 ?) rostris erectis, stigmatibus apicalibus, minutum obliquum; ovula basi affixa 2-6, ascendentiâ. Folliculæ 3 (4 ?) introrsum dehiscentes, 1-3 spermæ, semina erecta ovata; testâ duplici, exterior herbacea, interior membranacea, vel evanidâ. Embryo exalbuminosus macropodus, erectus, ascendens, anatropus cotyledine magno, vario, plumulâ variâ.

Sp. monostachys. Foliis petiolatis lineari, oblongis basi subcordatis emersis herbaceis. Floribus in spadice dense confertis sepalis persistentibus.

Rhizoma tuberosum radicibus crassis filamentosis ad apicem rhizomatis. Folia petiolata, petiolis subtrigonis basi membranaceis interiora amplexantibus, folia lineari, obliqua obtusis, basi subcordatis, vel junioribus cuneatis, 5 nerviis, venis transversalibus.

Spadice pedunculato, pedunculo cylindrico, involucro herbaceo caducissimo; Floris densè spiraliter dispositi sepalis, junioribus sub-imbricatis, cœruleis basi oblique cuneati apice subcordato ovatis. Stam. 6, filamentis crassis bractæis sub-longioribus antheræ cerulæ sub-quadrata biloculari, lateraliter dehiscentes, polline gibbi ellipsoidoeo luteo. Ovaria erecta-lævia 3-6 spermis, semina 2-4 (2-3 abortientibus,) erectis ovatis, 8 costatis. Testa exterior herbacea viridi laxâ facile separabili. Interior ad embryonem arete adpressa brunnea leviter striata, uno latera raphe irridi, chalaza magna viridi.* Cotyledon germinans elongatur in cornu, plumata diutius basi lateraliter fisso evolvitur, folio elliptico, cotyledon solidum, album, plumule basilare minimum.

Sp. undulatum. Foliis brevi petiolatis lineari oblongis, basi cuneatis, submersis ulvaceis. Floribus in spadice post anthesin elongato sejunctis. Sepalis caducissimis.

Rhizoma tuberosa, radicibus crassis paucis filamentosis ad apicem.

Foliis plurimis radicalibus petiolatis, lanceolatis, undulatis a limbo in petiolium decurrente nervo medio crasso, lateralibus, 2-4 paralleles nervis transversalibus. Limbo plerumque petiolo longiore vernatione involuti.

Floriis numerosi in spadice elongato dispositis; primo confertis, rachides elongatâ sparsis pedunculo longissimo emersi. Spatha acuta ante anthesin decidua. Sepalis 2, sub-spathulatis basi quasi unguiculatis coloratis (lacteo-albis) caducissimis, ad stamina 2 lateralia oppositis.

Stamine 6. filamentis erectis divaricatis carnosis persistentibus. Anthera biloba lateraliter dehiscente decidua e flavo cœrulescente. Polline luteo acute elliptico (in iodino vel acido globosa.)

Pistille 3, ovario superiore libero, stigmat terminal. Fructus 2, carpillis 3 follicularibus basi subinerveis demum divaricatis sistuis.

Follicula disperma, seminibus erectis umbilico brun. Testa lævi, simplex; vel membrum exterior tenuissima vix discreta. Raphe et chalazâ non cernabilibus.

Embryo erectus macropodus. Cotyledone maximo concavo carnosio plumulam amplutente. Plumula (in semine etiam) maxima bifolia, foliis inæqualibus margine involutis.

* Roxburgh describes the rachis as wood. I have not seen this appearance in any specimen I have met with.

Note.—Roxburgh describes the flowers as in monastachy, but there is considerable difference between my two species, perhaps this may not be his *Undulatum*, but otherwise it fully answers his description.

References to the Plates of Spathium Monostachys.

- a.* A single flower, seen sideways.
- b.* Ditto from below or front, shewing the two bracts in situ.
- c.* Stamen.
- d.* A bract.
- e.* Imaginary section, shewing situation of parts of flower.
- f.* Flower after inflorescence and capsules nearly ripe, with persistent bracts and stamens.
- g* and *g.* Another more magnified, and resting on the side.
- h.* Section of ditto, shewing its two cells placed back to back.
- i* and *i.* I. Pollen, gibbous at one side, much magnified—in II elliptic;
j. globose under the influence of iodine.
- k.* Pistil, with small oblique terminal stigma.
- l.* Ditto, section shewing ovaries in situ.
- m. m.* Capsules.
- n.* Section of ditto.
- o.* Seed.
- p.* Ditto magnified, shewing the ribs of the outer-coat.
- q.* Ditto, outer-coat taken off, shewing the raphé and chalaza, in various veins.
- r.* Embryo, all the coats taken off.
- s.* Second coat taken off, striated, dark brown, chalaza grown transverse.
- t.* Section of seed, shewing the eight ribs of outer-coat.
- u.* Embryo section.
- v.* Seed, longitudinal section.
- w.* Germinating seed.
- x.* Longitudinal section of ditto.
- a.* Ditto further advanced.
- y.* I. Plumula, extracted from *a*—II. Plumula in seed before germination.
- z.* *y.* More magnified.
- β *t* ϵ . Progressive states of germinating seed.
- ζ Part of leaf magnified.



Spathium monestachys Edg.^{var.}
Aponageton — — — ? Rox. b.

Ballou & Co. Lith.



Spathium undulatum Edg^{uth}
Sponogeton undulatum Koc^{so}

Baldwin & Co. lith.

Part of leaf magnified to show the nervation
 of the upper surface. I could not detect any stoma-
 ta.

Day.	Morning Tide A. M.					Evening Tide P. M.					Wind.	Range of Tide.	Weather, &c.
	Low Water.		High Water.		Wind.	Low Water.		High Water.					
	Time.	Height.	Time.	Height.		Time.	Height.	Time.	Height.				
1	9 30	9 0	4 0	13 4	S.	9 50	9 3	4 25	13 4	4 1	N.	6 A. M. drizzling rain, 12 P. M. clear throughout, 5 P. M. cloudy, 6 P. M. thunder.	
2	10 0	9 6	4 45	12 8	S.	10 30	9 10	5 0	12 6	2 8	N.	12 P. M. clear throughout, 4 P. M. cloudy.	
3	11 0	10 0	6 0	12 3	N.	11 35	10 1	6 50	12 6	1 11	S.	9 A. M. cloudy, 12 P. M. clear, 3 P. M. cloudy.	
4 Sunday,	12 0	9 11	7 0	10 11	N.N.W.	1 0	9 9	7 45	12 2	2 5	N.	7 Ditto drizzling rain, 12 P. M. clear.	
5	2 0	9 8	8 0	12 5	N.	3 0	9 6	8 35	12 8	3 2	N.N.W.	9 Do. do. do., with little sunshine, 12 P. M. clear.	
6	3 30	9 4	8 50	13 0	N.	3 50	9 2	9 0	13 3	4 1	N.	12 P. M. Clear, 4 P. M. cloudy.	
7	4 0	9 0	9 30	13 5	S.	4 30	8 10	9 50	13 9	4 11	S.	6 A. M. Showers, 12 P. M. clear throughout, 5 P. M. cloudy.	
8	4 55	8 9	10 0	14 0	N.	5 15	8 6	10 30	14 3	5 9	N.	6 A. M. light rain, 12 do. do. do., 4 P. M. [cloudy.	
9	5 30	8 5	10 50	14 6	N.	5 50	8 2	11 5	14 9	6 7	S.	12 P. M. Cloudy, 3 P. M. ditto ditto.	
10	6 5	8 0	11 35	15 0	S.	6 35	7 9	11 50	15 4	7 7	N.	6 A. M. Clear throughout, 12 P. M. cloudy.	
11 Sunday,	6 50	7 6	12 0	15 7	S.	7 5	7 4	12 30	16 0	8 8	W.	7 Do. drizzling rain with sunshine, 12 P. M. clear throughout, 3 P. M. cloudy, 5 P. M. showers.	
12	7 35	7 1	12 50	16 7	N.N.W.	8 0	6 10	1 5	17 0	10 2	N.	8 Ditto sultry, 12 P. M. clear.	
13	8 30	6 9	1 35	17 0	N.N.W	8 50	6 9	1 50	17 0	10 3	N.N.W.	6 Do. drizzling rain, 12 P. M. clear throughout, 3 P. M. cloudy.	
14	9 0	6 11	2 30	16 0	N.N.W.	9 30	7 3	2 50	15 6	8 3	N.	12 P. M. Clear throughout, 5 ditto cloudy.	
15	9 50	7 7	4 5	15 0	N.	10 5	7 10	4 35	14 8	6 10	S.	7 A.M. Cloudy, 2 P. M. clear.	
16	11 0	8 3	5 15	14 4	N.N.W.	11 45	8 5	6 0	14 0	5 7	N.N.W.	12 P. M. Clear, 5 ditto cloudy.	
17	12 0	8 10	6 30	13 6	N.	12 50	9 4	6 50	13 0	3 8	N.N.W.	7 A. M. ditto, 12 ditto ditto, 5 P. M. drizzling rain.	
18 Sunday,	1 0	9 2	7 35	12 8	N.	1 35	9 6	7 50	12 6	3 0	N.N.E.	12 P. M. Ditto, 4 ditto ditto.	

Register of the Rise and Fall of the Tide at Prince of Wales Island and Singapore, furnished to the Editor by order of the Government of India.—October 1840,—(Continued.)

Day.	Morning Tide A. M.						Evening Tide P. M.						Weather, &c.
	Low Water.			High Water.			Low Water.			High Water.			
	Time.	Height.	Range of Tide.	Time.	Height.	Range of Tide.	Time.	Height.	Range of Tide.	Time.	Height.	Range of Tide.	
19	1 45	10 0	8 5	12 2	2 2	N.	2 0	10 0	8 35	12 0	2 0	N. N. E.	10 A. M. Cloudy, 12 ditto drizzling rain, 4 P. M. clear.
20	2 30	9 9	8 50	12 4	2 7	N. N. E.	2 50	9 6	9 5	12 7	3 1	N. N. E.	10 Ditto ditto throughout, 1 P. M. showers
21	3 0	9 3	9 35	12 9	3 6	N. E.	3 30	9 0	9 50	13 1	4 1	N.	3 ditto ditto throughout.
22	3 55	8 9	10 35	13 4	4 7	N. E.	4 5	8 6	10 35	13 7	5 1	N. N. W.	6 Do. ditto, 8 A. M. showers, 1 P. M. drizzling rain.
23	4 35	8 3	10 50	13 9	5 6	N.	4 50	8 0	11 5	14 2	6 2	N. N. E.	6 Ditto ditto and drizzling rain, 12 ditto clear with strong breezes from N. E.
24	5 0	7 9	11 30	14 5	6 8	S.	5 30	7 6	11 50	14 7	7 1	N. N. E.	11 Do. drizzling rain with sunshine, 12 P. M. cloudy, 3 P. M. thunder, 5 P. M. showers.
25 Sunday,	5 50	7 3	12 0	14 10	7 7	N. N. E.	6 0	7 1	12 30	15 1	8 0	N. N. E.	7 Ditto clear throughout, 3 P. M. cloudy, 5 ditto rain and thunder.
26	6 30	6 10	12 50	15 3	8 5	N. N. E.	6 50	6 8	1 0	15 3	8 7	N. N. E.	6 Ditto do. do., 2 do. do., 4 do. thunder.
27	7 0	6 11	1 30	15 0	8 1	N. N. E.	7 30	7 2	1 50	14 9	7 7	N. N. E.	6 Ditto ditto ditto, 4 ditto ditto, 6 ditto do.
28	7 50	7 6	2 0	14 6	7 0	N. N. E.	8 0	7 9	2 30	14 1	6 4	N.	7 Do. cloudy, 12 P. M. clear, 2 P. M. cloudy.
29	8 30	8 2	2 45	13 8	5 6	S.	8 45	8 5	3 0	13 5	5 0	N. N. E.	6 Ditto clear, 10 A. M. cloudy, 12 ditto light rain, 2 P. M. clear, 4 P. M. cloudy.
30	9 0	8 7	3 15	13 3	4 8	S.	9 15	8 10	3 35	13 0	4 2	N. N. E.	7 Ditto ditto, 10 ditto do., 12 do. thunder, 5 ditto cloudy.
31	9 35	9 0	3 45	12 9	3 9	S.	9 50	9 3	4 0	12 6	3 3	N.	6 Ditto do., 12 P. M. ditto, 1 ditto do., 3 do. clear, 5 P. M. cloudy, 6 P. M. drizzling rain.
													7 Ditto cloudy, 8 A. M. showers and strong breezes from S., 12 ditto clear throughout.
													(Signed) W. DAWSON, Harbour Master.

(Signed)

W. DAWSON,

Harbour Master.

Register of the Rise and Fall of the Tide at Prince of Wales Island and Singapore, furnished to the Editor by order of the Government of India—November 1840.

Day.	Morning Tide A. M.						Evening Tide P. M.						Wind.	Weather, &c.		
	Low Water.			High Water.			Range of Tide.	Low Water.			High Water.				Range of Tide.	
	Time.	Height.	Time.	Height.	Time.	Height.		Time.	Height.							
1 Sunday.	10 0	9 6	4 40	12 4	2 10	N.	11 35	9 8	6 15	12 1	2 5	N.N.E.	6 A. M. clear, 2 P. M. cloudy, 3 P. M. thunder, 4 P. M. drizzling rain.			
2 "	12 0	9 11	6 40	11 11	2 0	N.	12 50	10 2	7 30	11 8	1 6	N.E..	12 P. M. Ditto throughout, 3 P. M. cloudy, 4 P. M. drizzling rain.			
3 "	1 0	10 0	8 0	12 0	2 0	N.N.W.	2 0	9 10	9 0	12 4	2 6	N.N.E.	7 A. M. Ditto do., 11 A. M. do., 3 do. do. do.			
4 "	3 0	9 8	9 50	12 7	2 11	N.	3 30	9 6	10 0	12 9	3 3	N.N.E.	6 Ditto ditto do., 5 P. M. ditto.			
5 "	3 50	9 3	10 30	13 1	3 10	N.N.W.	4 0	9 0	10 50	13 6	4 6	N.N.E.	12 P. M. Ditto do., 2 do. do., 3 P. M. thunder.			
6 "	4 30	8 10	11 5	13 9	4 11	N.N.W.	5 0	8 6	12 30	13 11	5 5	E.	6 A. M. Ditto do., 1 ditto do., 4 ditto ditto.			
7 "	6 0	8 3	12 50	14 2	5 11	N.	6 30	8 0	1 0	14 5	6 5	E.	7 Ditto do. do., 2 ditto do., 3 do. do., 5 P. M. drizzling rain.			
8 Sunday.	6 50	7 10	1 30	14 8	6 10	N.	7 10	7 7	1 50	14 11	7 4	E.	8 Ditto do. do., 12 do. do., 3 do. ditto, 4 do. ditto ditto.			
9 "	7 40	7 3	2 0	15 2	7 11	N.	8 0	7 0	2 0	15 5	8 5	E.	7 Ditto do. do., 1 do. do. 3 do. drizzling rain with sunshine.			
10 "	8 30	6 9	2 30	15 8	8 11	S.	8 50	6 6	2 50	15 10	9 4	N.N.E.	6 Ditto do. do., 2 do. do., 4 do. thunder, 6 P. M. drizzling rain.			
11 "	9 0	6 7	3 0	15 11	9 4	S.	9 30	6 10	3 30	15 3	8 5	N.N.E.	7 Ditto ditto ditto, 1 ditto ditto.			
12 "	9 50	7 1	3 50	15 0	7 11	S.	10 0	7 4	4 0	14 9	7 5	E.	6 Ditto do. do., 10 A. M. ditto, 5 P. M. cloudy throughout.			
13 "	10 30	7 8	4 30	14 6	6 10	N.N.W.	10 50	7 11	4 50	14 3	6 4	E.	8 Ditto ditto ditto, 4 P. M. do., 5 do. clear.			
14 "	11 0	8 4	5 0	14 0	5 8	N.W.	11 30	8 7	5 30	13 6	4 11	E.	7 Ditto ditto do., 4 do. do., 5 do. thunder.			
15 Sunday.	11 50	8 9	5 50	13 0	4 3	S.	12 15	9 0	6 10	12 10	3 10	N. E..	12 P. M. Ditto ditto, 1 ditto do., 6 ditto ditto.			
16 "	12 45	9 3	6 35	12 10	3 7	S.	1 0	9 5	6 55	12 9	3 4	N. E..	8 A. M. Ditto ditto, 2 ditto ditto, 5 ditto ditto.			

Register of the Rise and Fall of the Tide at Prince of Wales Island and Singapore, furnished to the Editor by order of the Government of India—November 1840.—(Continued.)

Day.	Morning Tide A. M.						Evening Tide P. M.						Weather, &c.
	Low Water.			High Water.			Low Water.			High Water.			
	Time.	Height.	Range of Tide.	Wind.	Time.	Height.	Time.	Height.	Time.	Height.	Range of Tide.	Wind.	
17	1 30	9 8	7 5	12 7	2 11	N.	1 50	9 11	7 35	12 6	2 7	N.N.E.	7 A. M. Clear throughout, 3 p. m. cloudy and drizzling rain.
18	2 5	10 2	7 55	12 7	2 5	N.N.W.	2 35	9 11	8 5	12 9	2 10	N.N.E.	7 Ditto do. do., 2 do. do. 5 p. m. thunder.
19	2 50	9 9	8 35	13 0	3 3	N.N.W.	3 5	9 7	8 55	13 3	3 8	N.N.W.	6 Ditto do. do., 1 do. do., 4 do. clear throughout.
20	3 35	9 5	9 10	13 5	4 0	N.	3 50	9 3	9 45	13 7	4 4	E.	[p. m. cloudy, throughout.
21	4 5	9 3	10 0	13 9	4 6	N.	4 35	8 9	10 30	14 0	5 3	S.	7 Ditto cloudy, 12 p. m. clear throughout, 4 p. m. cloudy.
22 Sunday,	4 50	8 7	10 50	14 2	5 7	N.N.W.	5 0	8 6	11 0	14 5	5 11	E.	7 Do. do., 12 do. do. do., 3 do. do., 5 p. m. drizzling rain.
23	5 30	8 2	11 20	14 7	6 5	N.E. ..	5 50	8 0	11 45	14 9	6 9	N.	6 do. Clear throughout, 2 p. m. cloudy, 4 p. m. clear.
24	6 0	7 9	12 0	14 11	7 2	E.	6 30	7 10	12 25	14 7	6 9	N.N.W.	6 Ditto do. do. 4 ditto do., and squally from N. N. W.
25	6 50	7 11	12 45	14 5	6 6	N.N.W.	7 0	8 1	1 0	14 2	6 1	E.	12 p. m. Ditto ditto, 2 ditto do., 5 p. m. thunder.
26	7 30	8 3	1 30	13 10	5 7	E.	7 50	8 5	1 50	13 7	5 2	N. E. ...	6 A. M. Ditto do., 12 do. do., 2 do. cloudy throughout, 5 p. m. strong breezes from N. N. W.
27	8 0	8 7	2 0	13 5	4 10	N. E. ...	8 30	8 9	2 25	13 3	4 6	N.	6 Do. cloudy throughout and drizzling rain, 12 p. m. clear, 4 ditto cloudy.
28	8 50	8 8	2 45	13 2	4 6	N.	9 0	8 10	3 0	13 2	4 4	S.	7 Ditto clear throughout, 12 p. m. cloudy, 3 do. drizzling rain.
29 Sunday,	9 25	9 0	3 30	13 1	4 1	S.	9 45	9 1	3 50	13 3	3 11	N.	6 Ditto do. ditto, 2 do. do., 3 do. thunder, 5 p. m. drizzling rain.
30	10 0	9 2	4 0	13 0	3 10	E.	1 30	9 5	4 30	13 0	3 7	N.N.W.	8 Ditto ditto do., 4 do. do., and thunder. 6 Ditto cloudy, 12 p. m. clear throughout. (Signed) G. DAWSON, Harbour Master.

Register of the Rise and Fall of the Tide at Prince of Wales Island and Singapore, furnished to the Editor by order of the Government of India,—December 1840.

Day.	Morning Tide A. M.						Evening Tide P. M.						Wind.	Weather, &c.
	Low Water.			High Water.			Low Water.			High Water.				
	Time.	Height.	Range of Tide.	Time.	Height.	Wind.	Time.	Height.	Range of Tide.	Time.	Height.			
1	10 50	9 8	4 50	12 10	3 2	N.N.W.	11 0	9 11	5 0	12 8	2 9	N.	6 A. M. drizzling rain, 12 P. M. clear throughout, 3 P. M. cloudy.	
2	11 30	10 1	5 30	12 6	2 5	N.	11 50	10 3	5 50	12 4	2 1	N.N.W.	6 Ditto ditto ditto 12 ditto ditto ditto	
3	12 0	10 5	6 0	12 4	1 11	N.	12 30	10 1	6 30	12 6	2 5	N. E.	12 P. M. Clear throughout, 5 ditto cloudy.	
4	12 50	9 11	6 50	12 8	2 9	N.	1 0	9 8	7 0	12 9	3 1	N. E.	12 Ditto ditto ditto 3 ditto do. and strong breezes from N.	
5	1 30	9 6	7 30	12 11	3 5	N.	1 50	9 3	7 50	13 0	3 9	E.	6 A. M. Cloudy, 12 P. M. clear, 2 P. M. cloudy 3 P. M. drizzling rain.	
6 Sunday	2 0	8 11	8 0	13 3	4 4	N.N.W.	2 30	8 9	8 30	13 5	4 8	S.	7 Ditto ditto, 12 ditto ditto, 3 ditto ditto 5 ditto thunder.	
7	2 50	8 7	8 50	13 6	4 11	N.N.W.	3 0	8 5	9 0	13 8	5 3	S.	7 Do. do. throughout, 12 P. M. clear throughout, 3 do. cloudy 5 P. M. drizzling rain.	
8	3 30	8 3	9 30	13 9	5 6	N.N.W.	3 50	8 0	9 50	13 11	5 11	N.	12 P. M. Clear ditto, 5 ditto cloudy.	
9	4 0	7 10	10 0	14 0	6 2	N.N.W.	4 30	7 8	10 30	14 1	6 5	N.N.W.	12 Ditto ditto ditto, 2 ditto ditto, 5 P. M. thunder.	
10	4 50	7 6	10 50	14 2	6 8	S.	5 0	7 4	11 0	14 4	7 0	N.	12 Ditto ditto ditto, 5 ditto do., 6 do. do. do.	
11	5 30	7 2	11 30	14 5	7 3	S.	5 50	7 0	11 50	14 5	7 5	E.	12 Ditto ditto ditto, 4 ditto ditto, 6 ditto, drizzling rain.	
12	6 0	7 1	12 0	14 5	7 4	N.	6 30	7 4	12 30	14 2	6 10	N. E.	12 Ditto ditto ditto, 2 do. do. 4. do. thunder.	
13 Sunday	6 50	7 7	12 50	13 10	6 3	N.N.W.	7 0	7 9	1 0	13 7	5 10	N. E.	6 A. M. Ditto ditto, 12 ditto ditto, 4 do. do.	
14	7 30	8 2	1 30	13 4	5 2	N.N.W.	7 50	8 5	1 50	13 1	4 8	N. E.	7 Ditto ditto ditto, 12 ditto ditto.	
15	8 0	8 6	2 0	12 11	4 5	S.	8 30	8 8	2 30	12 9	4 1	N.	6 Ditto ditto ditto, 12 do. do., 5 P. M. clear.	
16	8 50	8 11	3 0	12 8	3 9	S.	10 0	9 2	4 0	12 6	3 4	N.	6 Ditto ditto ditto, 12 ditto ditto.	
17	10 45	9 3	4 45	12 4	3 1	N.	11 0	9 6	5 0	12 4	2 10	S.	8 Ditto cloudy 12 P. M. clear throughout, 5 P. M. cloudy.	

Register of the Rise and Fall of the Tide at Prince of Wales Island and Singapore furnished to the Editor by order of the Government of India, —December, 1840.—(Continued.)

Day.	Morning Tide A. M.						Evening Tide P. M.						Weather, &c.		
	Low Water.			High Water.			Wind.	Low Water.			High Water.			Wind.	
	Time.	Height.	Range of Tide.	Time.	Height.	Range of Tide.		Time.	Height.	Range of Tide.					
18	11 45	9 6	5 45	12 6	3 0	N.	12 0	9 3	6 0	12 9	3 6	N.N.W.	U A. M. drizzling rain, 12 P. M. clear, 4 P. M. cloudy.		
19	12 35	9 0	6 30	12 11	3 11	S.	12 30	8 9	6 50	13 1	4 4	E.	6 Ditto ditto ditto, 12 ditto ditto, 4 ditto do.		
20 Sunday	1 0	8 7	7 0	13 4	4 9	S.	1 30	8 5	7 30	13 7	5 2	N.E. ..	7 Ditto ditto ditto, 12 ditto ditto.		
21	1 50	8 3	7 50	13 9	5 6	S.	2 0	8 0	8 0	13 11	5 11	N.E. ..	6 Ditto cloudy, 12 P. M. clear, 5 P. M. Cloudy.		
22	2 30	7 10	8 30	14 2	6 4	N.	2 50	7 8	8 50	14 4	6 8	N.E. ..	7 Ditto ditto, 8 A. M. drizzling rain, 12 ditto ditto.		
23	3 0	7 6	9 0	14 6	7 0	N.	3 30	7 3	9 30	14 8	7 5	N.	6 Ditto drizzling rain, 12 P. M. clear throughout, 4 P. M. cloudy.		
24	3 50	7 0	9 50	14 10	7 10	N.N.W.	4 0	6 10	10 0	15 0	8 2	N.	6 Ditto cloudy, 12 ditto ditto ditto, 4 ditto ditto.		
25	4 30	6 8	10 30	15 3	8 7	N.N.W.	4 50	6 6	10 50	15 5	8 11	E.	7 Ditto clear throughout, 12 ditto drizzling rain with sunshine, 5 P. M. cloudy.		
26	5 0	6 4	11 0	15 7	9 3	N.N.W.	5 30	6 1	11 30	15 9	9 8	E.	6 Ditto ditto ditto, 12 ditto cloudy, 5 P. M. clear and strong breezes from N. N. W.		
27 Sunday	5 50	6 4	11 50	15 6	9 2	N.N.W.	6 0	6 7	12 0	15 3	8 8	N.N.E.	6 Ditto ditto ditto, 12 ditto ditto, 5 ditto cloudy.		
28	6 30	6 10	12 30	14 10	8 0	N.N.W.	6 50	7 3	12 50	14 6	7 3	N.N.W.	6 Ditto ditto ditto, 12 A. M. ditto, 2 ditto clear.		
29	7 0	7 7	1 0	14 1	6 6	N.N.W.	7 30	7 10	1 30	13 10	6 0	N.N.W.	6 Ditto drizzling rain, 12 P. M. clear throughout, 5 P. M. cloudy.		
30	7 50	8 3	1 50	13 7	5 4	N.	8 0	8 5	2 0	13 4	4 11	N.N.W.	12 P. M. Clear throughout, 6 P. M. cloudy.		
31	8 30	8 8	2 35	12 10	4 2	N.	8 55	8 11	2 55	12 8	3 9	S.	12 Ditto ditto ditto, all day.		
													(Signed) W. DAWSON, Harbour Master.		

6 A. M. drizzling rain, 12 P. M. clear, 4 P. M. cloudy.
 6 Ditto ditto ditto, 12 ditto ditto, 4 ditto do.
 7 Ditto ditto ditto, 12 ditto ditto.
 6 Ditto cloudy, 12 P. M. clear, 5 P. M. Cloudy.
 7 Ditto ditto, 8 A. M. drizzling rain, 12 ditto ditto.
 6 Ditto drizzling rain, 12 P. M. clear throughout, 4 P. M. cloudy.
 6 Ditto cloudy, 12 ditto ditto, 4 ditto ditto.
 7 Ditto clear throughout, 12 ditto drizzling rain with sunshine, 5 P. M. cloudy.
 6 Ditto ditto ditto, 12 ditto cloudy, 5 P. M. clear and strong breezes from N.N.W.
 6 Ditto ditto ditto, 12 ditto ditto, 5 ditto cloudy.
 6 Ditto ditto ditto, 12 A. M. ditto, 2 ditto clear.
 6 Ditto drizzling rain, 12 P. M. clear throughout, 5 P. M. cloudy.
 12 P. M. Clear throughout, 6 P. M. cloudy.
 12 Ditto ditto ditto, all day.

(Signed) W. DAWSON,
Harbour Master.

Register of the Rise and Fall of the Tide at Prince of Wales Island and Singapore, furnished to the Editor by order of the Government of India,—January, 1841.

Day.	Morning Tide A. M.						Evening Tide P. M.						Wind.	Weather, &c	
	Low Water.			High Water.			Range of Tide.	Low Water.			High Water.				
	Time.	Height.	Time.	Height.	Time.	Height.		Time.	Height.						
1	9 0	9 0	3 0	12 6	3 6	S.	9 30	9 2	3 30	12 4	3 2	N.	6h. A. M. Clear throughout, 12 P. M. sultry, 4 P. M. clear.		
2	10 0	9 4	4 0	12 2	2 10	S.	10 30	9 5	4 30	12 0	2 7	N.	6 Ditto ditto ditto, 12 ditto ditto, 3 ditto do.		
3 Sunday,	11 0	9 7	5 0	11 10	2 3	N.	11 30	9 8	5 30	11 8	2 0	N. W.	6 Ditto ditto ditto, 1 ditto ditto, 5 ditto do.		
4	12 0	9 10	6 0	11 6	1 8	N.	2 0	9 9	7 0	11 6	1 9	N. E.	6 Ditto ditto ditto, 3 ditto cloudy.		
5	3 0	9 6	9 0	11 8	2 2	N. N. W.	3 30	9 4	9 30	11 11	2 7	N.	7 Ditto ditto ditto, 12 ditto sultry, 4 P. M. clear throughout.		
6	4 0	9 3	10 0	12 2	2 11	S.	4 30	9 0	10 30	12 5	3 5	N. N. W.	7 Ditto ditto ditto, 9 A. M. cloudy, 12 P. M. Drizzling rain and strong breezes from N.		
7	5 0	8 9	11 0	12 8	3 11	N.	5 30	8 6	11 30	12 11	4 5	N. E. ..	7 Ditto showers, 12 P. M. clear throughout 5 P. M. ditto ditto.		
8	6 0	8 3	12 0	13 1	4 10	N. N. W.	6 30	8 0	12 30	13 4	5 4	S.	6 Ditto cloudy 8 A. M. drizzling rain till, 6 P. M. ditto ditto.		
9	7 0	7 10	1 0	13 7	5 9	S.	7 30	7 7	1 30	13 9	6 2	N.	6 Ditto ditto, 12 P. M. clear throughout, 4 P. M. cloudy, 5 P. M. drizzling rain and strong breezes from N.		
10 Sunday,	7 30	7 3	1 30	14 0	6 9	S.	8 0	7 0	2 0	14 3	7 3	N.	6 Ditto clear throughout, 12 P. M. sultry, 3 ditto drizzling rain, 5 P. M. Strong breezes		
11	8 30	7 0	2 30	14 0	7 0	N.	8 50	7 3	2 50	13 10	6 7	N. E. ..	6 Ditto ditto ditto, 10 A. M. cloudy, 12 ditto ditto ditto, 5 ditto clear throughout.		
12	9 0	7 5	3 0	13 8	6 3	N.	9 30	7 8	3 30	13 6	5 10	N. E. ..	6 Ditto cloudy throughout, 8 ditto drizzling rain, 12 P. M. clear throughout, 5 P. M. cloudy drizzling rain and thunder.		
13	9 50	7 11	3 50	13 3	5 4	N.	10 0	8 2	4 0	13 0	4 10	N.	6 Ditto cloudy, 12 P. M. clear throughout, 5 ditto cloudy.		
14	10 30	8 5	4 30	12 9	4 4	N. N. W.	11 0	8 7	5 0	12 7	4 0	N.	6 Ditto clear throughout, 12 P. M. sultry, 5 ditto clear.		

Register of the Rise and Fall of the Tide at Prince of Wales Island and Singapore, furnished to the Editor by order of the Government of India,—January 1841,—(Continued.)

Day.	Morning Tide, A. M.					Wind.	Evening Tide P. M.					Wind.	Weather, &c.
	Low Water.		High Water.		Range of Tide.		Low Water.		High Water.		Range of Tide.		
	Time.	Height.	Time.	Height.			Time.	Height.	Time.	Height.			
15 "	11 30	8 9	5 30	12 5	3 8	N.	12 0	9 0	6 0	12 3	3 3	N.N.W.	6 A. M. clear throughout 12 P. M. cloudy, 2 P. M. drizzling rain, 5 P. M. clear.
16 "	12 30	8 9	6 30	12 0	3 3	N.N.W.	1 0	9 4	7 0	11 9	2 5	N. E. ...	6 Ditto cloudy, 12 P. M. clear, 2 P. M. Cloudy 3 P. M. ditto ditto.
17 Sunday,	1 30	9 6	7 30	11 7	2 1	N.N.W.	2 0	9 6	8 0	11 9	2 3	N. E. ...	6 Ditto clear throughout, 3 P. M. sultry.
18 "	2 30	9 4	8 30	12 3	2 11	N.N.W.	3 0	9 1	9 0	12 3	3 2	E. ...	6 Ditto ditto ditto, 4 P. M. cloudy.
19 "	3 30	8 10	9 30	12 5	3 7	N.N.W.	4 0	8 8	10 0	12 8	4 0	N. E. ...	6 Ditto ditto do. 12 do. sultry, 5 P. M. clear.
20 "	4 30	8 5	10 30	12 11	4 6	N.	5 0	8 3	11 0	13 1	4 10	N. E. ...	6 Ditto drizzling rain, 12 P. M. clear 5 P. M. cloudy.
21 "	5 30	8 0	11 30	13 3	5 3	N.N.W.	6 0	7 10	12 0	13 5	5 7	N.	6 Ditto clear throughout, 1 ditto sultry, 4 ditto clear.
22 "	6 30	7 8	12 30	13 7	5 11	S.	7 0	7 5	1 0	13 10	6 5	E.	6 Ditto ditto ditto, 12 ditto, cloudy, 4 ditto [showers.
23 "	7 30	7 3	1 30	14 0	6 9	S.	8 0	7 1	2 0	14 2	7 1	N.	6 Ditto ditto ditto, 1 ditto ditto, 4 ditto clear.
24 Sunday,	8 30	6 10	2 30	11 5	7 7	N.	9 0	6 8	3 0	14 7	7 11	N.	6 Ditto ditto ditto, 3 ditto ditto.
25 "	9 30	6 6	3 30	14 8	8 2	N.	10 0	6 6	4 0	14 5	7 11	N.	6 Ditto ditto ditto, 2 ditto ditto.
26 "	10 30	6 8	4 30	14 1	7 5	N.	11 0	6 11	5 0	13 9	6 10	N.	6 Ditto ditto ditto, 12 ditto sultry, 4 P. M. clear and strong breezes from N.
27 "	11 25	7 2	5 25	13 7	6 5	S.	11 50	7 5	5 50	13 6	6 1	N.	12 P. M. Ditto ditto, 5 ditto cloudy.
28 "	12 0	7 7	6 0	13 4	5 9	N.	12 25	7 9	6 25	13 2	5 5	N. E. ...	6 A. M. Ditto ditto, 12 ditto drizzling rain with sun-shine, 5 P. M. cloudy.
29 "	12 45	8 0	6 45	13 0	5 0	N.	1 0	8 2	7 0	12 10	4 8	N. E. ...	6 Do do. do. 12 do. sultry, 5 P. M. cloudy.
30 "	1 25	8 4	7 25	12 8	4 4	N.	1 45	8 5	7 45	12 7	4 2	N. E. ...	6 Ditto ditto ditto, 3 ditto cloudy.
31 Sunday,	2 0	8 7	8 0	12 6	3 11	N.	2 30	8 10	8 30	12 4	3 6	E.	6 Ditto ditto ditto, 1 ditto ditto, 5 P. M. clear (Signed,) W. DAWSON, Harbour Master.

Register of the Rise and Fall of the Tide at Prince of Wales Island and Singapore, furnished to the Editor by order of the Government of India, —February, 1841.

Day.	Morning Tide, A. M.				Evening Tide, P. M.				Range of Tide.	Wind.	Weather, &c.
	Low Water.		High Water.		Low Water.		High Water.				
	Time.	Height.	Time.	Height.	Time.	Height.	Time.	Height.			
1	2 45	9	0	12 2	3	2	N.	3	2	N. E. ...	6 A. M. clear throughout, 10 A. M. sultry, 6 P. M. clear.
2	3 25	9	4	11 10	2	6	N.	3	2	N. E. ...	6 Ditto ditto ditto, 10 ditto ditto, 6 ditto ditto.
3	4 0	9	8	10 0	2	3	N. N. W.	2	9	E.	6 Ditto ditto ditto, 10 ditto ditto, 6 ditto ditto.
4	5 0	9	6	10 12	4	2	10 N. E.	3	1	E.	6 Ditto ditto ditto, 10 ditto ditto, 6 ditto ditto.
5	5 50	9	1	11 30	2	3	S.	3	11	N.	6 Ditto ditto ditto, 10 ditto ditto, 6 ditto ditto.
6	6 30	8	8	12 0	4	3	N. E.	4	8	N.	6 Ditto ditto ditto, 10 ditto ditto, 6 ditto ditto.
7 Sunday,	7 0	8	3	12 50	5	1	N. N. W.	2	7	N. E.	6 Ditto ditto ditto, 10 ditto ditto, 6 ditto ditto.
8	7 50	7	10	1 30	3	5	11 N.	5	7	N. E.	6 Ditto ditto ditto, 10 ditto ditto, 6 ditto ditto.
9	8 30	7	4	2 0	6	8	N.	6	5	N. N. E.	6 Ditto ditto ditto, 10 ditto ditto, 6 ditto ditto.
10	9 0	6	9	2 50	7	10	N. N. W.	7	3	E.	6 Ditto ditto ditto, 10 ditto ditto, 6 ditto ditto.
11	9 50	6	8	3 0	7	9	N.	7	3	W.	6 Ditto ditto ditto, 10 ditto ditto, 6 ditto ditto.
12	10 30	7	2	4 0	6	10	N.	6	4	N.	6 Ditto ditto ditto, 10 ditto ditto, 6 ditto ditto.
13	11 0	7	8	4 50	5	10	N. E.	5	2	E.	6 Ditto ditto ditto, 10 ditto ditto, 6 ditto ditto.
14 Sunday,	11 50	8	3	5 30	4	9	S.	4	2	N.	6 Ditto ditto ditto, 10 ditto ditto, 6 ditto ditto.
15	12 30	8	6	6 30	3	7	N. N. W.	3	2	S.	6 Ditto ditto ditto, 10 ditto ditto, 6 ditto ditto.
16	1 0	9	2	7 0	2	9	N. W.	2	4	N. E.	6 Ditto ditto ditto, 10 ditto ditto, 6 ditto ditto.
17	1 50	9	6	7 50	1	11	N.	1	10	N. N. E.	6 Ditto ditto ditto, 10 ditto ditto, 6 ditto ditto.
18	2 30	9	6	8 30	1	8	2 N.	2	8	E.	6 Ditto ditto ditto, 10 ditto ditto, 6 ditto ditto.
19	3 0	9	0	9 0	3	3	S.	3	9	N.	6 Ditto ditto ditto, 10 ditto ditto, 6 ditto ditto.
20	3 50	8	4	9 50	4	5	N. E.	4	11	N. N. W.	6 Ditto ditto ditto, 2 P. M. cloudy, 5 P. M. drizzling rain with sunshine.
21 Sunday,	4 30	7	9	10 30	5	6	N.	5	11	N. N. W.	6 Ditto ditto ditto all day
22	5 0	7	4	11 0	6	4	S.	6	10	N.	6 Ditto ditto ditto, 4 P. M. cloudy, 6 P. M. thunder.
23	5 50	6	9	11 50	7	5	W.	7	11	N. N. E.	6 Ditto ditto ditto.
24	6 30	6	8	12 30	7	11	N.	7	10	S.	6 Ditto ditto ditto.
25	7 0	7	1	1 0	7	3	N. N. W.	6	10	N.	6 Ditto ditto ditto.
26	7 45	7	6	1 45	6	5	N. N. W.	5	11	N. E.	6 Ditto ditto ditto.
27	8 30	7	11	2 30	5	7	N.	5	2	N. E.	6 Ditto ditto ditto.
28 Sunday,	9 0	8	5	3 0	4	9	S.	4	4	N. N. W.	6 Ditto ditto ditto, 5 P. M. cloudy 6. P. M. thunder. (Signed,) W. DAWSON, Harbour Master,

W. DAWSON,
Harbour Master.

Register of the Rise and Fall of the Tide at Prince of Wales Island and Singapore, furnished to the Editor by order of the Government of India, — March 1841.

Day.	Morning Tide A. M.					Wind.	Evening Tide P. M.					Wind.	Weather, &c.		
	Low Water.			High Water.			Range of Tide.	Low Water.			High Water.			Range of Tide.	
	Time.	Height.	Time.	Height.	Time.			Height.	Time.	Height.					
1	9 50	8 10	3 50	12 10	4 0	N.	10 0	9 1	4 0	12 8	3 7	N.N.W.	6 A. M. clear throughout all day.		
2	10 30	9 4	4 30	12 6	3 2	N.N.W.	10 50	9 7	4 50	12 4	2 9	N. E. ...	6 Ditto ditto ditto.		
3	11 0	9 9	5 0	12 2	2 5	N.N.W.	11 30	9 11	5 30	12 0	2 1	N. E. ...	6 Ditto ditto ditto, 1 P. M. cloudy.		
4	11 50	10 1	5 50	11 10	1 9	N.	12 0	10 4	6 0	11 8	1 4	E.	6 Ditto ditto ditto, 2 ditto ditto.		
5	12 30	10 1	6 30	11 11	1 10	N. E. ...	12 50	9 10	6 50	12 2	2 4	N.N.W.	6 Ditto ditto ditto, 1 ditto ditto, 3 P. M. thunder 4 P. M. drizzling rain.		
6	1 0	8 9	7 0	12 5	3 8	N. E. ...	1 30	8 6	7 30	12 8	4 2	S.	6 Ditto ditto ditto, 12 sultry and drizzling rain, with sunshine.		
7 Sunday,	1 50	8 2	7 50	13 0	4 10	N. E. ...	2 0	7 10	8 0	13 4	5 6	N.	6 Ditto cloudy throughout, 12 clear, 2 P. M. cloudy, 5 P. M. thunder.		
8	2 30	7 7	8 30	13 7	6 0	S.	2 50	7 4	8 50	13 11	6 7	N.	6 Ditto clear, 12 P. M. sultry and drizzling rain with sunshine, 2 P. M. cloudy, 4 P. M. strong breezes for N. N. E.		
9	3 0	7 1	9 0	14 4	7 3	S.	3 30	6 9	9 30	14 8	7 11	N.	6 Ditto ditto, 12 ditto ditto, P. M. clear.		
10	3 50	6 4	9 50	14 11	8 7	N.	4 0	6 0	10 0	15 2	9 2	N.N.W.	6 Ditto ditto, 12 ditto ditto, 2 ditto ditto.		
11	4 30	6 0	10 30	15 0	9 0	N.	4 50	8 1	10 50	14 8	6 7	N. E. ...	6 Ditto ditto throughout, 2 ditto cloudy, 5 P. M. thunder.		
12	5 0	6 7	11 0	14 4	7 9	N. E. ...	5 30	6 9	11 30	14 0	7 3	N.	6 Ditto ditto, 3 P. M. cloudy.		
13	6 0	7 1	12 0	13 11	6 10	N. N. E.	6 45	7 5	12 45	13 9	6 4	N.N.W.	6 Ditto cloudy, 7 A. M. drizzling rain, 12 P. M. clear throughout.		
14 Sunday,	7 0	7 8	1 0	13 6	5 10	N.N.W.	7 40	7 11	1 40	13 3	5 4	N. E. ...	6 Ditto ditto, 12 P. M. clear, 3 P. M. cloudy, 5 P. M. ditto ditto.		
15	8 0	8 2	2 0	13 0	4 10	S.	8 45	8 5	2 45	12 9	4 4	N.	6 Ditto clear throughout, 12 P. M. sultry, 4 P. M. clear throughout.		
16	9 0	8 8	3 0	12 6	3 10	S.	9 40	8 11	3 45	12 3	3 4	N.	6 Ditto do. do. 12 do. do. 4 do. do. do.		

Register of the Rise and Fall of the Tide at Prince of Wales Island and Singapore, furnished to the Editor by order of the Government of India,—March, 1841,—(Continued.)

Day.	Morning Tide A. M.						Evening Tide P. M.						Wind.	Weather, &c.
	Low Water.			High Water.			Low water.			High Water.				
	Time.	Height.	Range of Tide.	Time.	Height.	Range of Tide.	Time.	Height.	Range of Tide.	Time.	Height.	Range of Tide.		
17	12 0	9 2	7 0	12 1	2 11	S.....	1 0	9 6	8 0	11 10	2 4	N.N.W.	6 A. M. cloudy, 12 P. M. clear, 5 P. M. cloudy.	
18	2 0	9 6	8 30	12 2	2 8	N.....	2 30	9 3	8 50	12 5	3 2	E.....	6 Ditto clear throughout, 12 P. M. sultry.	
19	3 0	9 0	9 0	12 9	3 9	N.E..	3 30	8 7	9 30	13 3	4 8	N.N.W.	6 Ditto ditto, 2 ditto cloudy.	
20	3 50	7 6	9 50	13 8	6 2	N.....	4 0	7 4	10 0	14 1	6 9	S.....	6 Ditto ditto, 2 ditto ditto, 3 P. M. drizzling rain.	
21 Sunday,	4 30	7 2	10 30	14 5	7 3	S.....	4 50	7 10	10 50	14 9	6 11	N.N.W.	6 Ditto cloudy and showers strong breezes from S. 1 P. M. drizzling rain.	
22	5 0	6 10	11 0	15 3	8 5	N.N.W.	5 30	6 8	11 30	15 7	8 11	N. E. ..	6 Ditto clear throughout, 2 P. M. cloudy, 5 P. M. drizzling rain.	
23	5 50	6 6	11 50	15 11	9 5	N.N.W.	6 0	6 4	12 0	16 3	9 11	N.	6 Ditto cloudy and showers, 12 ditto clear.	
24	6 30	6 2	12 30	16 6	10 4	N.E..	6 50	6 0	12 50	16 8	10 8	N.	6 Ditto ditto, 12 ditto ditto, 4 P. M. cloudy, 5 P. M. thunder.	
25	7 0	6 0	1 0	17 3	11 3	N.....	7 30	6 5	1 30	17 6	11 1	N. N. E.	6 Ditto clear, 4 P. M. cloudy.	
26	7 50	6 8	1 50	17 0	10 4	N.E..	8 0	7 3	2 0	16 8	9 5	S.....	6 Ditto ditto, 12 ditto sultry, 4 P. M. clear throughout.	
27	8 30	7 8	2 30	16 4	8 8	N.....	8 50	7 11	2 50	16 0	8 1	S.....	6 Ditto ditto throughout, 2 ditto cloudy.	
28 Sunday,	9 0	7 11	3 0	15 8	7 9	N.N.W.	9 30	8 3	3 35	15 4	7 1	N.....	6 Ditto cloudy, 12 ditto clear.	
29	9 50	8 6	3 50	15 0	6 6	S.....	10 0	8 10	4 0	14 8	5 10	N.N.W.	6 Ditto clear, 12 ditto cloudy, 2 P. M. drizzling rain.	
30	10 30	9 2	4 30	14 4	5 2	S.....	10 50	9 7	4 50	14 0	4 5	N.....	6 Ditto ditto, 12 ditto, 1 ditto showers.	
31	11 0	9 10	5 0	13 0	3 10	N.N.W.	11 30	10 2	5 30	13 4	3 2	N. N. E.	6 Ditto ditto, 12 ditto sultry, 1 ditto cloudy, 3 P. M. showers and thunder.	
													(Signed,) W. A. DAWSON, Harbour Master.	

W. A. DAWSON,
(Signed,) Harbour Master.

Notes on various Indian and Malayan Birds, with Descriptions of some presumed new Species. By EDWARD BLYTH, Curator to the Museum of the Asiatic Society.

A highly interesting collection of bird-skins, from Darjeeling, having been kindly entrusted to my charge by Dr. Pearson, for the purpose of describing, or otherwise noticing such among them as I may consider to be new, or worthy of some remark, I avail myself of the occasion not only to respond to the wishes of that gentleman, but to record a variety of observations upon other Indian and Malayan species of birds, which have recently fallen under my notice.

1. *Falco Aldrovandi*, Reinwardt, Tem. *Pl. Col.* 128; *F. severus*, Horsfield, *Lin. Trans.* XIII. 135; *F. subbuteo* (?), Franklin, *Proc. Zool. Soc.* 1831, 114. (RED-BELLIED FALCON.) Nearly allied to the Hobby Falcon (*F. subbuteo*). Length of a male about $10\frac{1}{2}$ inches; of wing $8\frac{1}{2}$ inches, and tail $4\frac{1}{2}$ inches; bill to forehead, including cere, $\frac{3}{4}$ inch over the curve, and rather more from point of upper mandible to gape; tarse posteriorly 1 inch, and middle toe and claw $1\frac{1}{2}$ inch. Colour above uniform dusky-black, with a very slight greyish cast, which is chiefly visible upon the back, and also on the tail, the medial feathers of which are obscurely barred with black, which colour extends down their middle; inner webs of the other tail-feathers having seven or eight well defined rufous bars, which also appear more or less on their exterior webs, excepting on the outermost; feathers at the sides of the back of the neck rufous, excepting at the tip, which colour indeed extends on the inner web to the tip in a very few, so that this rufous is always more or less visible: throat and front of the neck clear fulvous-white; the lores, cheeks, and ear-coverts, black like the crown: rest of the under-parts, sides, and inside of the wings to the greater quills, deep ferruginous, comparatively dilute on the breast, and each feather having a medial black stripe or spot: primaries barred for two-thirds of their length on the inner web with a series of transverse rufous spots: bill dusky-bluish, the lower mandible yellow except at the tip: legs bright yellow: all the tail-feathers are narrowly tipped with rufous-white; and the scapularies, tertiaries, and larger wing-coverts are

very slightly edged with the same. The female exceeds 11 inches long, with wings $9\frac{1}{2}$ inches, and tail $5\frac{1}{2}$ inches; colour of the upper-parts much less dark, or of a dusky brownish-slaty hue, slightly margined with greyish-brown especially on the scapularies, tertiaries, and larger wing-coverts, and more broadly on the upper tail-coverts: tail tipped with the same, having a slight tinge of rufous; its middle feathers greyish-dusky, with all but obsolete darker bars, and the rest marked as in the male, but with paler rufous: spot at each side of the lower part of the back of the neck whitish, and a blackish moustache separated from the black-brown of the cheeks, instead of the intervening space being filled up with black as in the male; there is also a narrow fulvous-white streak over the eye, and the frontal feathers immediately over the beak are whitish: the lower parts are but faintly tinged with ferruginous, which is deepest on the thighs, and marked with larger black spots and streaks than in the other sex: primaries barred on the inner web with very faint ferruginous. A young female has considerably more white on the forehead, and the feathers of the crown and occiput are dark brownish, marked with a dusky streak along the shaft: moustache much less developed, the black merely occupying the outer web, or only the shaft, of each feather: upper-parts dusky-brown, more broadly margined with rufous than in the preceding; the tips of the secondaries and of the inner webs of the primaries edged with white; middle tail-feathers greyish, distinctly banded with pale dusky; the exterior successively more fulvous, and with darker bars of a more mottled character than in the adult: upon the inner webs the fulvous is much fainter than in the mature female: the primaries have a series of large transverse oval white spots on the basal two-thirds of their inner webs; and the under-parts are still less tinged with ferruginous, which is all but confined to the belly, thighs, and under tail-coverts, these parts being nearly without markings, while the breast and sides are streaked longitudinally with blackish-brown, forming larger, but less defined, markings than in the adult; the wings of this specimen are $9\frac{1}{4}$ inches long.

The handsome male here described is from Darjeeling; and both females are old specimens in the Museum of the Asiatic Society, procured in the neighbourhood of Calcutta. I have seen no notice of this

bird inhabiting India, but suspect that Major Franklin's *F. subbuteo* refers to no other.* In Java it is not uncommon.

2. *Syrnium Sinense*: *Strix Sinensis*, Latham, *Ind. Orn., Supp.*, p. 61; *Str. orientalis*, Shaw, *Zool.*, VII, 257; and figured by Hardwicke and Gray, *Ill. Ind. Zool.* A young bird, in full-grown nestling plumage;

* Since the above was written, Mr. Jerdon has kindly favored me with a copy of the printed *Supplement* to his valuable Catalogue of the Birds of Peninsular India, and with a collection of beautiful coloured drawings of many of the species. Among them is one of a bird referred by that gentleman to *F. Subbuteo*, and noticed as such in his *Supplement*; but it exactly agrees with my female above described, and is distinct from the European Hobby. "I obtained a single specimen of this Falcon," he informs us, "during the cold season, in a grove of trees North of Jaulnah. I found its stomach crammed with *Libellulæ*. It was called *Doureylee* by one native falconer, and *Reygee* by another, who said it was only a cold weather visitant in the Peninsula, coming in and disappearing along with the *Bhyree* (*F. peregrinus*.)"

The same naturalist has also furnished me with the following description of a small Falcon, recently procured by him upon the Neilghierries in January, and which I somewhat incline to think can be no other than the present in a different state of plumage, being probably the immature male. "Length $11\frac{1}{2}$ inches, of wing $9\frac{1}{4}$ inches, and tail 5 inches; extent 27 inches. Bill deep fleshy-red, the tip dusky; cere and legs deep orange-red; claws fleshy; irides deep brown; orbital skin orange yellow. Above dark slaty-grey, some of the feathers centred and tipped darker; the dorsal edged with rusty: tail light grey obsoletely barred: ocular region and cheek-stripe nearly black: narrow frontal band, supercilium, chin, throat, ear-feathers and sides of the neck, white; breast and abdomen rusty-white with blackish-brown marks, longitudinal on breast, heart-shaped on the sides, and narrow and arrow-like on the centre of the abdomen: vent, under tail-coverts, and thigh-coverts, pale unspotted rusty. Habit, insectivorous."

The name *Falco Aldrovandi*, I perceive, is applied by this ornithologist in his *Supplement* to the *Shaheen*, (his previous *F. Shaheen*,) with the remark, that he "was misled by the description in Griffith's Cuvier (where it is stated to be only 10 inches long) to consider it undescribed." In the *Dict. Class. d'Hist. Nat.*, however, I also find *F. Aldrovandi* stated to be $10\frac{1}{2}$ inches in length, and Temminck's plate above cited is referred to: again, in Stephens's continuation to Shaw's *Zoology* (xiii, pt. ii. 40), *F. Aldrovandi*, Tem., is doubtfully identified with *F. severus*, Horsfield, the length of which, as copied from the latter naturalist, is given as the same. Finally, referring to Dr. Horsfield's amended list of Javaese birds prefixed to his *Zoological Researches in Java*, I again perceive that *F. Aldrovandi* is identified with *F. severus*. On the other hand, Mr. Walter Elliot remarks, that the *Shaheen* is correctly figured by Temminck as *F. Aldrovandi*; this *Shaheen* measuring from nearly 15 to $19\frac{1}{2}$ inches long, according to the sex, and bearing no particular resemblance to the present species in its colouring.

At all events, I suspect that *F. Subbuteo* may be safely expunged from the list of Indian birds hitherto ascertained, the more especially as Mr. Jerdon has certainly mistaken our present species for it, as I presumed Major Franklin had done. Another small Falcon, which I have lately obtained in the vicinity of Calcutta, is *F. Tinnunculoides*, Tem., which is figured, too, in one of the coloured drawings of the late Dr. Buchanan Hamilton.

which exactly corresponds with the first dress of the European *S. Aluco*, and certainly cannot represent the *Strix Indranea*, Sykes (*Proc. Zool. Soc.*, 1832, 82), as suspected by Mr. Jerdon (*Madr. Jour.*, No. XXIV, 88), who further inclines to identify this species with *Str. pagodarum*, Tem. (*Pl. Col.* 230), or *Str. Seloputo*, Horsfield (*Lin. Trans.* XIII, 140), which, to judge from the description in Shaw's *Zoology* (XIII, 65), seems to me inadmissible. Mr. Jerdon observed a single specimen "in a tope, and some large single trees, near Verdupettah, to the south of Madura, on the Palamcottah road," and the dimensions he has given accord with those assigned by Col. Sykes to his *Strix Indranea*, and exceed those of the immature specimen before me in the degree to be expected. I annex a description. Length $15\frac{1}{2}$ inches, of wing from bend 11 inches, tail 7 inches; tarse 2 inches. Bill straw yellow, at base dusky, where impended by bristle-like feathers, barbed and of a brown colour only at base, the rest black; face rufous-brown, with pale shafts to the feathers, and a little mixed with blackish; the disk, anterior to the ears, shining brown-black, and posterior to them marked with rufous-brown near the ends of the feathers: plumage of the crown, neck, shoulders, and under-parts, with the tail-coverts, extremely flimsy and of downy texture; the scapularies and interscapularies firmer and more adult-looking, though also very slight: wings and tail as in the adult: crown, with the back and sides of the neck, dusky-brown tipped with whitish, and towards the shoulders shewing a fulvous bar on each feather; throat and breast less conspicuously whitish-tipped, the latter having two fulvous bands on each feather; rest of the under-parts dull fulvous barred with dusky, and many adult feathers appearing on the back and breast.

3. *Athene Brodiei*: *Noctua Brodiei*, Burton, *P. Z. S.*, 1835, 152; *N. tubiger*, Hodgson, *As. Res.*, XIX, 175. (COLLARED OWLET.) This very diminutive species is nearly allied to the common *Ath. cuculoides*, but is much smaller, an adult male measuring but $6\frac{1}{2}$ inches in total length, wing from bend $3\frac{1}{4}$ inches, and tail $2\frac{1}{4}$ inches; tarse posteriorly $\frac{5}{8}$ inch. A rather larger specimen, which I presume to be a female, measures 7 inches long; wing from bend $3\frac{7}{8}$ inches, and tail $2\frac{3}{4}$ inches: this latter is a young bird, retaining its nestling feathers on the head and neck, with a few elsewhere. Plumage of the male similar to that of *Ath. cuculoides* upon the back, wings, and tail, the last, however, having its pale bars more of a fulvous hue; head and neck dusky, with the pale bars more

clearly defined and contrasting than in *C. cuculoides*, having also more the appearance of spots; on the lower part of the hind-neck is a conspicuous broad fulvous collar tipped with black, and impended by some white feathers over the middle, and a few black ones laterally; throat white, tinged with straw-yellow, and middle of the whole underparts the same, broadly streaked with brown on the inner webs of the feathers of the belly; breast and sides marked nearly as in *Ath. cuculoides*, but the barrings more brightly contrasted: tibia and tarsus clothed with short dusky feathers, mottled with whitish; but only a few scattered hairs on the toes, which had evidently been bright yellow, as is also the bill. The young (presumed) female is pure white underneath where the male is yellowish, but in other respects generally similar: the uncast nestling feathers are uniform dull greyish brown on the head and neck, each having a pale speck on its shaft, and being of the ordinary flimsy texture; while those of the back and sides of the breast are purer brown, with obscure mottlings; bill partly dusky.

A singular character of this handsome little species consists in the extraordinary prolongation of its *nares*, forming a tubular external cell, no trace of which appears in the allied species*: in all other respects, it is, however, much too nearly related to *Ath. cuculoides*, &c., to permit of generic separation. The specimens described are from Darjeeling.

The species of these small Indian Owls are rather numerous. Another allied to *Ath. cuculoides*, is described by Mr. Gould, *Proc. Zool. Soc.* 1837, 136, by the name of *Ath. erythropterus*; but it had previously been described by Lieut. Tickell, in *Journ. As. Soc.* II. 572, as *Strix radiata*, and some account of its habits is given by that gentleman: there is also an excellent coloured portrait of this species among the drawings of the late Dr. Buchanan Hamilton, who styles it *Strix undulata*.†

Another member of the same group would seem to exist in the *Strix castanoptera* of Dr. Horsfield, *Lin. Trans.* XIII. 140; where also, among these small tuftless Owls, is described *Strix rufescens*,‡ Horsfield, and at

* This was written before I met with Mr. Hodgson's description of the species.—E. B.

† Specimens of the male and female of this species, from Chyebassa, have been presented to the Asiatic Society by Lieut. Tickell since the above was written; as also an example of *Ath. Brodiei*, killed in Upper Bengal, by Mr. Frith.

‡ In his catalogue of birds prefixed to the 'Zoological Researches in Java,' Dr. Horsfield questions the distinctness of this from *Scops Javanicus*, Lesson, or *Sc. Lempiji*, Horsfield; one of the tufted species.

page 280 of the same volume, the *Strix scutellata*, Raffles (the legs of which are stated to be "feathered to the toes," whence the applicability of the name bestowed is not very manifest, unless it allude to the toes only). Referring to the *Appendix* to Shaw's Zoology, we also find noticed the *Noctua Sonnerati*, Tem., *N. hirsuta*, Tem., and *N. Brama*, Tem., which last is the *N. Indica*, Franklin (*Proc. Zool. Soc.*, 1831, 115), and is common in this neighbourhood, where likewise occurs the *Strix lugubris*, Tickell (*Jour. As. Soc.*, II. 572).

A *Noctua Tarayensis*, nearly allied to *cuculoides*, is also described by Mr. Hodgson, *As. Res.* XIX. 175, together with the *Brodiei* (v. *tubiger*, H.), and two species of *Scops*, which may have to be added to *Sc. Lempiji*, Horsfield, *Lin. Trans.* XIII. 140.

4. *Picus (Dendrocopus) Himalayanus*, Jardine and Selby, *Ill. Orn.* pl. CXVI., representing the unmoulted young male. (BLACK-BACKED WOODPECKER.) I am not aware that the adults of this species have ever been described. It is closely allied to the European *P. major*, from which it differs in various details, and the adult to a greater extent than the young bird, which latter has the under-parts *streakless* pale dingy fulvous-brown, and the entire crown tipped with red in the male, but not in the female, whereas both sexes of the young of *P. major* have the crown thus tipped. The adult male, as in *P. major*, is distinguished from the other sex by having a glossy crimson occiput. Length $9\frac{3}{4}$ inches, the female rather less; from wing to bend respectively $5\frac{1}{8}$ and 5 inches; and tail $3\frac{1}{2}$ inches: bill to forehead $1\frac{1}{4}$ inch, and tarse $\frac{3}{4}$ inch. All the upper-parts, save the crimson occiput of the male, fine glossy black, with a great white wing-spot formed by the tertiary-coverts, and less developed in the male than in the female and young: four middle tail-feathers wholly black, the rest successively more barred with fulvous-white: the large feathers of the wing, except the two first primaries, marked with white spots on their outer webs, and with larger white spots on the inner web: vent and lower tail-coverts crimson: under-parts from the breast golden fulvous-brown (in the adult), having a broadish black streak along the middle of each feather, becoming obsolete on the middle of the belly: throat and fore-neck dingy-fulvous, flanked by a black line extending from the side of the lower mandible to the shoulder; above this line is a triangular patch of golden-fulvous impending the shoulder, and continued forward (generally without inter-

ruption) to the ear-coverts, which are paler; a band of the same crosses the forehead, immediately over the bill, and is continued backward to the ear-coverts, surrounding the eye: bill dull leaden-blue, passing into dusky towards the tip; and feet leaden-brown. The young have no streaks whatever on the under-parts, which are less tinged with golden, and incline to rufous on the breast; their back is somewhat brownish, and the triangular patch over the shoulders dull white: a specimen before me in this dress differs only from Messrs. Jardine and Selby's figure in having no crimson on the crown, whence I conclude it to be a female, and that represented to be a male. An inhabitant of Darjeeling and other districts of the Himalaya.

5. *Indicator xanthonotus*, Nobis. (GOLDEN-BACKED HONEYGUIDE). The discovery of this species upon the Himalaya is of some interest, as all its congeners heretofore known are inhabitants of Africa only. Structure typical: length of a female $5\frac{7}{8}$, or probably 6 inches when recent; of wing from bend $3\frac{3}{8}$ inches; and tail $2\frac{1}{4}$ inches; bill from forehead $\frac{1}{4}$ inch, and above $\frac{7}{16}$ inch from gape; tarse $\frac{1}{2}$ inch; 2nd and 3rd quills equal and longest, the 1st and 4th a little shorter, and also equal: outermost pair of tail feathers $\frac{3}{4}$ inch shorter, and penultimate pair $\frac{1}{4}$ inch shorter, than the rest, which latter are subequal: bill short and Finch-like, of a triangular shape viewed from above, the ridge of the upper mandible nearly obsolete, and its outline much curved; that of the lower mandible less so. Forehead and lower part of the cheeks golden-yellow; throat tinged with the same: crown and back of the neck dull olive-green, as also the front of the neck, which is slightly tinged with yellow: breast dusky-ash, the middle of each feather somewhat darker; belly and thighs albescent, with a medial dusky streak to each plume: lower tail-coverts and above the tibiae dull black, with lateral whitish margins: wings, scapularies, and interscapularies, dusky-black, laterally margined with yellowish olive-green, obsolete on the outer primaries, and the tertiaries margined on their inner webs with white: tail and its upper coverts black, the uropygials and largest medial pair of coverts edged on the inner web with grey, and the small external pair of tail-feathers obliquely marked with whitish at the tip: broad medial line along the rump bright golden-yellow, changing to fine sulphur-yellow on the back under the interscapularies, where the feathers are decomposed, silky, and hair-like, somewhat resembling those of the centre of the crest of

a typical *Regulus*, but straighter and less downy; sides of the rump, bordering the broad yellow stripe, black; and the wings underneath whitish tinged with yellow, the feathers of downy texture: beak horny-brown, the lower mandible paler; and legs apparently dark-greenish. From Darjeeling, where stated to be very rare.

The affinities of this genus I have long considered to be with the Woodpeckers, and not with the Cuckoos: their feet are formed exactly as in the former group, not as in the latter; and they are accordingly known to climb the boles of trees, in the cavities of which they deposit numerous shining white eggs, wherein also they resemble the Woodpeckers. I am unacquainted with the conformation of their soft parts, further than that the traveller Bruce informs us, of his "Bee Cuckoo," (*Appendix* to 'Travels to discover the source of the Nile,' v. 179), that "the tongue is sharp-pointed, can be drawn to almost half its length out of the mouth beyond the point of the beak, and is very flexible," a statement which I did not remark until long after I had arrived at the opinion here expressed. If my view be correct, it will probably be further confirmed by the stomach proving to have its muscular coat considerably more developed than in the Cuckoos; by the absence of *cæca*, as in the Woodpeckers (normally*), these existing in all the Cuckoo tribe which I have examined; and by the sternal apparatus, the form of which is very different in the Woodpeckers and Wryneck from what it is in the Cuckoos. The Barbets (*Bucco*) are quite distinct from either, and more nearly allied in internal conformation to the South American group of Toucans (*Ramphastidæ*), which they even resemble in the peculiar character of having short imperfect clavicles; while the African group of Touracos (*Musophagidæ*), also allied, is remarkable for having the clavicles fully developed, but permanently joined together by cartilage only to constitute the furcula, as I have observed in three different species.

6. *Bucco Franklinii*, Nobis, (FRANKLIN'S BARBET.) Allied to *B. cyanops*. Length 8 inches, of wing $3\frac{3}{4}$ inches, and tail $2\frac{1}{2}$ inches: bill to forehead $\frac{13}{16}$ inch, and to hind-angle of upper mandible $1\frac{1}{16}$ inch; tarse $\frac{7}{8}$ inch. Colour of the upper-parts vivid-green, of the under paler and

* Professor Owen once remarked the presence of *cæca* in a specimen of the British Green Woodpecker (*Picus viridis*), several of which same species I have since examined without finding any.—E. B.

more yellowish-green; edge and shoulder of the wing deep blue, and its under surface marked with pale buff-yellow as in *B. cyanops*; forehead and occiput crimson; the crown and throat bright glistening orange: around the eye black, continued backward to the sides of the occiput, where mixed with green: the ear-coverts were being moulted in the specimen, but appear to be coming of a mixed green and blue, and the feathers growing at the base of the lower mandible are crimson. Bill dusky-black, whitish at base of lower mandible; and legs evidently greenish, or a sort of lead-colour tinged with green, as in *B. cyanops*: tail also, as in that species, verditer underneath. From Darjeeling; and dedicated to Major James Franklin, F. R. S., &c., a highly meritorious pioneer among the investigators of Indian Ornithology, whose still useful "Catalogue of Birds collected on the Ganges between Calcutta and Benares, and in the Vindhyan hills between the latter place and Gurra Mundela, on the Nurbudda," is published in the Proceedings of the Zoological Society for 1835, pp. 114 to 125, and republished in the Journal of the Asiatic Society, I, 260 et seq.

7. *Cuculus micropterus*, Gould, *Proc. Zool. Soc.* 1837, 137. The *Bocuttácko* of Bengal, so named from its cry.*

8. *C. Sonneratii*, Latham, *Ind. Orn.* II. 215; *le petit Coucou des Indes*, Sonnerat, *Voy. Ind.* IV. 216; *C. Himalayanus*, Vigors, *Proc. Zool. Soc.* 1831, 172, Gould's *Century*, Pl. LIV: all these notices referring to the female. I have a monograph of the Indian *Cuculidæ* in preparation, and therefore defer for the present what remarks I have to offer on this and the preceding species.

9. *Trogon Hodgsonii*? Gould (I have no description to refer to): *Tr. fasciatus*, Var. A., Latham, *Gen. Hist. Birds*, III. 213; but having no white pectoral bar: marked female. Length nearly 13 inches, of wing from bend 6 inches, and middle tail feathers $7\frac{1}{2}$ inches, the outermost 3 inches shorter. Colour of the upper parts, neck and breast, deep chestnut-brown, darkest on the head, and brightening to the rump and upper tail-coverts; belly crimson: smaller wing-coverts and tertiaries externally, finely undulated black and brown, the rest of the wing blackish with

* The Asiatic Society has received this species from the Malay peninsula, and it is included in Mr. Vigne's catalogue of his collection of birds procured in Kashmir and Little Tibet, (*Proc. Zool. Soc.*, January 26, 1841.)

white exterior margins to most of the primaries ; tail as in *Tr. erythrocephalus* and *Tr. Malabaricus* (vide *P. Z. S.*, 1834, 25-6).

10. *Edolius Crishna*, Gould, *P. Z. S.*, 1836, 5; *Corvus Crishna*, Buchanan Hamilton; *Crishna Crow*, Latham, *Gen. Hist. Birds*, III, 51; *Criniger splendens*, Tickell, *J. A. S.*, II, 574; *Cometes* (olim *Chibia casia*, Hodgson, *Ind. Rev.* 1837, 324, and *J. A. S.*, 1841, 29. (HAIR-CRESTED DRONGO). This remarkable and handsome species is not rare about Calcutta, but would appear to be more common in all three regions of Nepál, and there is a specimen in the collection from Darjeeling.

11. *E. remifer*, Tem. *Pl. Col.* 178, apud Shaw's *Zoology*, XIII. part 2, 140. Mr. Jerdon, I presume, means this by the term *retifer* (probably a misprint), which he includes in his valuable catalogue of the birds of Peninsular India (*Madr. Jour.* No. xxv. 241); but he adds *L. Malabaricus*, Shaw, as a synonym, which name is founded on an erroneous identification of two species, and has since been currently bestowed on a third distinct from both, as all are from the present one. This (which is not likely to be Mr. Jerdon's bird) is distinguished from every other known to me, with the exception of one described by Mr. Hodgson (*Ind. Rev.*, 1837, 325-6), by having the terminal 4 inches of the prolonged naked shafts of its outermost tail-feathers barbed equally on both sides; while from Mr. Hodgson's *Melisseus* (olim *Bhringa*) *tectirostris*, as described by that naturalist, it differs in the Shrike-like form of its bill, the upper mandible of which is strongly hooked, in the comparative shortness of its tarse, and in the feathers of its crown and occiput being of a scale-like form, and not lanceolate like those of the neck: length 10 inches, of wing from bend $5\frac{1}{4}$ inches, and tail 5 inches, being even at the tip, except that the vanes of the outermost feather on each side are shorter than the rest, while the shaft is prolonged and barbless for 8 inches, having then 4 inches of barb as described, 1 inch in width; moreover, these stems and barbed tips are straight, without any tendency to spire, as in most of the other species. Bill to forehead $\frac{7}{8}$ inch in a straight line, the tip of the upper mandible much hooked, and its base impended by an elevated ridge of recurved feathers, successively longer to the front: tarse $\frac{3}{4}$ inch. Colour altogether richly steeled black, with a brilliant metallic shine, the coronal feathers scale-like, the nuchal hackled, and the pectoral intermediate.

Among the racket-tailed species in the Asiatic Society's Museum, I distinguish the following :—

E. grandis, Gould, *P. Z. S.*, 1836, 5; *Cometes* (olim *Chibia*) *Malabaroides*, Hodgson, *Ind. Rev.*, 1837, 325; *E. Malabaricus*, Shaw's *Zoology*, VII, 293, and figured in Stephens's *Appendix* to the same, Vol. XIII, Part II, 140, which figure is taken from Latham's *General History of Birds*, II, 57, where it would seem to have been copied from one of Lady Impey's drawings alluded to in the text, as differing somewhat from the species there described. Shaw erroneously identifies his bird with "le Grand Gobe-mouche de la côte de Malabar" of Sonnerat (*Voy.* iv, 162); and Sonnerat identifies his species as that noticed by Buffon "sous le nom de Drongo de la côte de Malabar:" referring then to Buffon (*Oiseaux*, iv, 587), we read, "On trouve aussi une espèce de Drongo, à la côte de Malabar, d'où il nous a été envoyé par M. Sonnerat; il est un peu plus grand que celui de Madagascar ou de la Chine; il a comme eux le plumage entièrement noir; mais il a le bec plus fort et plus épais, il manque de huppe, et le caractère qui le distingue le plus, consiste" in the prolonged shafts of the exterior tail-feathers, &c. Hence the *Malabar Shrike* of Sonnerat, or *Malabar Drongo* of Buffon, is not the *Lanius Malabaricus* of Shaw, who informs us, that "on the head, springing immediately above the base of the upper mandible, is a large rising tuft, consisting of many plumes of different lengths, and much resembling that of the Rose-coloured Ousel:" now this applies distinctly to the *E. grandis*, Gould, wherein the frontal feathers recline backward over the occiput; but it will not apply to the species referred to by Mr. Gould as *E. Malabaricus*, which again is different from that of Sonnerat and Buffon; the latter being probably the *E. Rangoonensis*, Gould, which, it may be suspected, is also Mr. Jerdon's species. Under these circumstances, I conceive that the specific term *Malabaricus* had much better be disused altogether, for which reason I have headed this notice with the more appropriate name bestowed on the present species by Mr. Gould. The following is a description of the specimen before me. Length, to extremity of penultimate tail feathers, 14 inches; of wing from bend $6\frac{3}{4}$ inches; of middle tail feather $5\frac{1}{2}$ inches; of penultimate $6\frac{3}{4}$ inches, and the shaft of the outermost extending 8 inches beyond, having the terminal $3\frac{3}{4}$ inches barbed externally, but towards the tip only on the inner web, and spiring inward till the under-surface becomes uppermost

at the tip: bill to forehead $\frac{5}{16}$ inch, and to gape above $1\frac{5}{8}$ inch; very feebly hooked, and rather less compressed than in the next species: tarse 1 inch, hind-toe and claw rather more. Frontal crest about twice the length of that of *E. cristatellus* (Nobis), measuring fully $2\frac{1}{4}$ inches, and reclining back beyond the occiput: coronal feathers slightly hackled, the occipital and nuchal strongly so, and those on the fore-neck shaped as on the crown. Plumage generally somewhat loose and puffy: and colour uniformly black, with a steel-blue gloss. I have seen this species alive, in the possession of a native. Its song is very fine; loud and sonorous, with the deep tone of the European Blackbird. The specimen described is from Tenasserim; and the species is known to range from Nepál and Assam to Sumatra.

E. cristatellus, Nobis; *E. Malabaricus* of Gould and most recent authors, but not of Shaw, nor the *Malabar Drongo* or *Shrike* of Buffon and Sonnerat. Shaw's species, it would seem, remained unnoticed for a long period, during which the name *Malabaricus* came to be applied to the present nearly allied one, but it remains to be shewn that either of these inhabits the Malabar coast, or any part of the Indian peninsula. That now under consideration is inferior in size to the preceding, with frontal crest but half as long, and vaguely comparable to that of *Pastor cristatellus*, as the crest of *E. grandis* has been compared to that of *P. roseus*: in the finest specimens, when pressed down, this barely reaches to the occiput, and as usually elevated it does not recline beyond the middle of the head, its longest feathers measuring generally under $1\frac{1}{4}$ inch. Length, to extremity of penultimate tail feather, 13 inches or somewhat less; of wing from bend $5\frac{3}{4}$ to $6\frac{1}{4}$ inches, and middle tail feathers $5\frac{3}{4}$ to 6 inches, the penultimate $6\frac{1}{2}$ to $6\frac{3}{4}$ inches, and the prolonged stem and terminal barb of the outermost with its amount of twirl the same as in *E. grandis*. Plumage also generally similar, with the exception of the crest, the shorter feathers of which describe an equal curvature to the longer ones of *E. grandis*. The young differ only in the looser texture of their feathers, which underneath and on the rump are glossless fuscous, while the forehead is not more crested than in the next species, and the feathers of the crown and neck are not hackled, but of flimsy texture and rounded at the tips, where alone they are glossed: the greater length of the tail readily distinguishes them from the species next noticed; and the specimens here described are from the Tenasserim coast.

E. Rangoonensis, Gould, *Proc. Zool. Soc.* 1836, 5. "Distinguishable from *E. Malabaricus* [*subcristatus*], to which it is nearly allied, by its shorter beak, and by the *total absence* from its forehead of the fine curled plumes which decorate that bird; the wing also is somewhat shorter." Gould, *loc. cit.* In the catalogue of Dr. McClelland's birds from Assam, however, Dr. Horsfield writes: "One of our specimens agrees accurately with Mr. Gould's specific character; in two others, *the crest is less developed*, and the lanceolate plumes on the throat are less prominent" (*Proc. Zool. Soc.* 1839, 158). Mr. Gould's description is as follows: "*E. ater viridi splendens; rectricum externarum scapis longissimis, vexillis latè spatulatis ad apicis marginem exteriorem præditis. Long. tot. (rectricibus externis exclusis), 12 unc; rostri, 1¼; alæ, 6; caudæ, 5¾; tarsi, 1.*" The expression "*ater viridi metallicè splendens*" occurs also in Mr. Gould's definition of *E. grandis*; and a slight cast of green is certainly discernible, more especially on the back, upon all three of the closely allied species before me, one of which (judging from the *aggregate* of the foregoing notices) I presume to be referrible to this *Rangoonensis*. Length as described, the middle caudal feather 5½ inches, or but 4¾ inches in another specimen, and penultimate 6 inches and 4⅞ inches; wing from bend 5¾ and 5½ inches; and bill to gape 1⅜ inch, that of *E. cristatellus* measuring 1½ inch, and sometimes rather more; the crest is hardly less developed than in *Pastor cristatellus*, or it may be compared to that of *E. remifer*, but partakes more of the character of that of *E. cristatellus*, and the nostrils are more densely impended by recumbent plumes than in either of the two species last described. One specimen has its outermost tail-feathers prolonged 12 inches beyond the next, and the naked shaft makes one complete spiral turn, and the barbed extremity another, twirling till its upper surface is again brought upward at the tip; the other specimen has much shorter naked shafts and barbs, and the spirature is less, though still very decided. This twist of the outermost tail-feathers is common to many species of this strongly marked genus, is very perceptible in a slight degree in the common *D. balicassius*, and is most curiously exemplified in *D. Crishna*. The plumage of *E. Rangoonensis* resembles that of the allied species, and the specimens here described are also from Tenasserim.

In the catalogue before cited of Dr. McClelland's Assam birds, the *E. grandis* is also included, with the remark, that "several specimens

of this bird received from Assam agree with the specific character and description given by Mr. Gould, in all points excepting the size, being about one-third smaller; but further observations are required to determine with precision the points by which the long-tailed *Edolii* are to be discriminated." *Horsfield*.

Together with the three allied species here noticed, Mr. Gould described one without the racket-tail, by the appellation *E. viridescens*, as follows: "*E. intensé splendenti chalybeo-viridis, supra magis saturatus. Long. tot. 11 unc; rostri, 1 $\frac{1}{4}$; alæ, 5 $\frac{3}{4}$; caudæ, 5; tarsi, 1. Habitat apud Manillam:*" the form of the bill (so variable in this genus), of the tail, the structure of the plumage, and how to distinguish it from the allied species, are left to be guessed at; but as the tail is not mentioned to be forked, *we may suppose* that it is square, and if so, there is a specimen in the Asiatic Society's Museum, which *may be presumed* to represent this species. Length as described, or a trifle less; of wing do., and outermost tail-feather do., the medial 4 $\frac{3}{4}$ inches: bill to forehead 1 $\frac{1}{16}$ inch, to gape 1 $\frac{7}{16}$ inch, in shape similar to that of *E. cristatellus*, but rather more compressed, and very densely impended at base by short and unelevated reflected feathers, scarcely lengthened in front as in *E. remifer*. Plumage nowhere distinctly hackled, but a tendency to this on the sides of the neck; and the clothing feathers are soft and somewhat loose in texture, their glossed tips imparting a spotted appearance to the neck, and a uniform shine on the back, the brilliancy increasing on the wings: tarsi $\frac{7}{8}$ inch. This species is nearly allied to the racket-tailed group, though wanting that particular character.

12. *E. annectans*: *Dicrurus* (olim *Buchanga*) *annectans*, Hodgson, *Ind. Rev.* 1837, 326. There are two specimens of a Drongo in the Darjeeling collection, the smaller of which agrees very well with Mr. Hodgson's description above cited, but the larger (and they are very obviously identical) measures 12 $\frac{1}{2}$ inches to end of outermost tail-feather, the wing 5 $\frac{3}{4}$ inches, bill to forehead nearly 1 inch, and above 1 $\frac{1}{8}$ inch to gape, tarse $\frac{3}{4}$ inch, and hind toe and claw 1 $\frac{1}{16}$ inch in a straight line. The bill, as compared with that of the common *E. balicassius* (seu *albirictus*, Hodgson), is longer, considerably less Shrike-like, not so compressed at the terminal half, the ridge is much more angular, the point less hooked, the feathers impending its base are shorter, and less distinct from those of the forehead; the gloss of the plumage has less of a

greenish cast, but more of a greyish-blue, and is not very bright; and the under-parts especially are duller, the throat and belly being dusky and having scarcely any or indeed no gloss. The smaller specimen measures but $10\frac{5}{8}$ inches long, the wing $5\frac{1}{4}$ inches, outermost tail-feather $5\frac{1}{4}$, the medial (which are both imperfect in the other) $4\frac{3}{4}$ inches: the twirl of the outermost tail-feathers is less than in *E. balicassius*.

I have also a species from the Malay peninsula, which is even intermediate to the last and *D. balicassius*, but has the tail much less forked than in either, and in this respect and also in its plumage approximates to my presumed *C. viridescens*. Bill much as in the latter, but widening somewhat more to the base, its upper ridge more elevated than in *annectans*, and the moderately hooked tip of the upper mandible intermediate to those of *annectans* and *balicassius*, and nearly resembling that of *viridescens*. Length of three specimens $9\frac{3}{4}$ to $10\frac{1}{2}$ inches, of wing from bend $5\frac{1}{4}$ to $5\frac{5}{8}$ inches, outermost tail-feathers $4\frac{5}{8}$ to 5 inches, medial $4\frac{1}{8}$ to $4\frac{5}{8}$ inches; bill to forehead $4\frac{1}{8}$, and to gape $1\frac{1}{4}$ inch, its vertical depth at base exceeding $\frac{3}{8}$ inch; tarse $\frac{3}{4}$ inch: frontal plumes not lengthened, but erect and reversed anteriorly, though to a much less extent than in *viridescens*; outer tail-feathers curling just perceptibly upwards at the tip. The plumage of this species very closely resembles that of *E. balicassius*, but inclines a little to assume the character of that of *E. viridescens*; the tail in the latter being all but square, while in the present it is very distinctly though slightly forked, and the much more angular ridge of the bill will always serve to distinguish it readily from *E. balicassius*. As out of the host of *half descriptions* in Latin, French, and English, to which I have access, there is not one that applies satisfactorily to this unquestionable species, I must sever the Gordian tie by styling it *E. affinis*.*

* Recurring now to Mr. Hodgson's paper on the Drongos repeatedly referred to, it may be as well to recapitulate the conclusions at which I have arrived, concerning the species which are there described.

The *Cometes* (olim *Chibia*) *casia*, yields precedence to *Edolius Crishna*, Gould, and has long previously been figured and described by Latham as the *Crishna Crow*.

The *Cometes* (olim *Chibia*) *Malabaroides*, H. is the *Lanius Malabaricus* as described by Shaw and figured by Latham and Stephens, but not the *Malabar Shrike* or *Drongo* of Sonnerat and Buffon, nor that recently styled *Malabaricus* by Gould and others: it is the *E. grandis*, Gould.

The *Melisseus* (olim *Bhringa*) *tectirostris*, H. would seem to have been previously undescribed, and must be very closely allied to *E. remifer*.

13. *Pomatorhinus ruficollis*, Hodgson, *As. Res.* XIX, 182; where also are described *P. schisticeps*, H., which is clearly the same as, and takes precedence of, *P. leucogaster*, Gould (*P. Z. S.* 1837, 137); and *P. erythrogenys*, Vigors (*P. Z. S.* 1831, 173, and figured in Gould's Century, Plate LV). A fourth Indian species is the *P. Horsfieldi*, Sykes (*P. Z. S.* 1832, 89); and a fifth the *P. montana*, Horsf. (*Lin. Trans.* XIII, 165, and figured in the 'Zoological Researches in Java'), which was obtained by Dr. McClelland in Assam (vide *P. Z. S.* 1839, 166). Others inhabit Australia, as the *P. turdinus* and *P. trivirgatus* of Temminck (the latter having been figured in Messrs. Jardine and Selby's 'Illustrations of Ornithology,' Plate LXIX); and a third has been characterized by Mr. Gould from the north-western coast of that country, as *P. rubecula* (*P. Z. S.* 1839, 144). It is probable that still other species have been added, with which I am unacquainted; the genus having been originally constituted upon one only, which encourages me to distinguish and designate the following:—

Xiphirhynchus, Nobis: allied to *Pomatorhinus*, but the bill much longer and more slender, very thinly compressed throughout its length, widening only at the extreme base, and describing a considerable incurvation. Plumage, wings, and tail, as in *Pomatorhinus*, but the toes and claws rather more slender and elongated.

The *Dicrurus* (olim *Buchanga*) *albirictus*, H., is clearly *E. balicassius*, which would appear to be very common throughout India; Mr. Hodgson has figured it in the 18th volume of the Asiatic Researches.

The *D.* (olim *B.*) *annectans*, H., does not appear to tally with any previous description with which I am acquainted.

The *Chaptia muscipetoides*, H., is identified by Mr. Jerdon with *E. æneus*, or *Dicrurus æneus*, Vieillot.

Mr. Jerdon, in his list of birds inhabiting the Indian Peninsula (*Mad. Jour.*, No. XXXV., 238, *et seq.*), includes five species of this genus, viz. *balicassius*, *cærulescens*, Vieillot (v. *Fingal*, Shaw, v. *leucogaster*), doubtful *macrocerus*, Vieillot, *æneus* (v. *muscipetoides*, Hodgson), and supposed *retifer*. Major Franklin's list (*P. Z. S.*, 1831, 117,) contains only *cærulescens*; and that of Col. Sykes (*P. Z. S.*, 1832, 86,) but *cærulescens* and *balicassius*. Dr. McClelland's collection from Assam comprised *grandis*, *Rangoonensis*, *balicassius*, and *æneus*: and finally, I may notice that three species are mentioned in Dr. Horsfield's catalogue of the birds of Java (*Lin. Trans.*, XIII, 145), viz. *forficatus* (? this is an African bird), *cineraceus* (there described), and alleged *Malabaricus*.

A monograph of this genus, with full and adequate descriptions of every species known up to this time, would be highly acceptable to ornithologists. Various other insufficient notices of oriental species exist, of which several may refer to some of the foregoing.

14. *X. superciliaris*, Nobis : size of a Shahmour (*Copsychus macrourus*), and slightly rufous brown, with dull ferruginous under-parts, a dark ash-coloured head, and narrow white streak over the eyes. Length of a male $8\frac{5}{8}$ inches, and of a female $8\frac{3}{8}$ inches ; of wing, from bend $2\frac{7}{8}$ and $2\frac{3}{4}$ inches, and tail $3\frac{5}{8}$ and $3\frac{7}{8}$ inches : bill to forehead 2 inches over the curve, and $1\frac{7}{8}$ inch in a straight line, the upper mandible a little exceeding the lower one in length : tarse 1 inch, middle toe and claw $1\frac{3}{16}$ inch, and hind toe and claw 1 inch, the latter nearly $1\frac{1}{2}$ inch. Colour of the upper-parts uniform brown, the quills and tail dusky ; of the under-parts dull or but moderately bright rufo-ferruginous ; crown, occiput, and sides of the head, dark cinereous, having a narrow superciliary white line continued backward to the occiput : throat whitish, streaked with dusky grey ; and breast fainter rufous than the belly, and obscurely spotted with dusky : shoulders of the wings and tibial feathers dark cinereous : bill dusky-black, with whitish tips to the mandibles ; and legs apparently leaden-brown, perhaps tinged with greenish. The female only differs in having the rufous colouring of the under-parts not so bright. Inhabits Darjeeling, and is reported to be a pleasing songster.

The two last genera pertain to a vast natural group, mostly characterized by soft puffy plumage and its usual concomitants—rounded wings and a graduated tail, strong feet and claws (remedying the deficiency of the volar powers), in general a particular style of marking, and the bill assuming almost every modification of form, whence, from the undue consideration with which this organ has been customarily regarded, the various genera have been scattered about in systems according to the resemblances borne by it to the exclusion of everything else. These birds hop with the belly near the ground, taking moderately long springs, their action resembling that of a true Tree-creeper (*Certhia*) upon a horizontal surface : the greater number are gregarious in parties of eight or ten, chiefly but not wholly insectivorous, seeking their food much among fallen leaves as well as upon trees, and in general they have loud, harsh, and clamorous voices ; their flight is short and feeble, and they sail with motionless expanded wings as far as they can before alighting. Many have the bill laterally very much compressed, as exemplified by the two genera last noticed, (but especially *Xiphirynchus*,) in which it is more or less prolonged and curved downward ; the same

tendency to curve, with strong lateral compression, is retained in the much shorter bill of *Timalia* (in the species of which considerable diversity in the form of this organ is observable, as seen by comparing *T. pileata* with *T. Horsfieldi*); and the brevity and vertical depth attain their ultimatum in *Paradoxornis*, Gould, (*v. Temnoris*, olim *Suthora*, Hodgson, and *Bathyrynchus*, McClelland,) where also there is considerable lateral compression. Other genera assume the meruline and warbler form of bill, as *Prinia*, various species of which differ in no other respect from *Timalia*, and even *Orthotomus*, where the diminution of size, and delicacy of general conformation are carried to the extreme. *Crateropus* (*v. Ianthocinclia*, Gould), *Cinclosoma*, and their immediate allies, vary from the meruline form of bill, passing from that of *Pomatorhinus* into a corvine, as exhibited by *Keropia* (the *Garrulus striatus* of Vigors): and a meliphagidous modification occurs in *Alcopus* (olim *Sibia*), Hodgson, which in other respects borders closely upon *Crateropus*, while it leads off to the tribe of *Leiothrix*, *Heterornis* (olim *Cutia*), Hodgson, *Pteruthius* (with a Shrike-like bill), and others in every sort of way annexant, which it would be tedious to enumerate further. A second example of one of the most remarkable forms, I proceed to characterize as—

Paradoxornis ruficeps, Nobis. A rigid divider might, indeed, constitute of this a separate division, ranging intermediate to *Paradoxornis* and *Conostoma*, Hodgson (*ante*, X. p. 856); but without having a specimen of *Paradoxornis* to compare it with, I shall provisionally refer it to that genus. Length 7 in., of wing from bend $3\frac{1}{2}$, and middle tail feathers $3\frac{3}{8}$ in., the two next on either side somewhat longer, the rest graduating, and the outermost $\frac{5}{8}$ in. shorter than the longest: 6th and 7th quills subequal and longest, 5th a mere trifle shorter: bill to forehead $\frac{9}{16}$ inch in a straight line, and above $\frac{3}{8}$ inch in greatest vertical depth, the ridge of the upper mandible describing a considerable curve, and rising somewhat from its base, while the point a little overhangs that of the lower mandible; the sides are compressed, the section of the upper ridge is rounded, and the general form denotes a high degree of compressive power; nostrils round, lateral, and basal, and concealed by semi-reflected feathers directed upwards: tarsi strong, somewhat exceeding 1 inch in length, and furnished with stout claws suited for perching. General colour olive-brown, darker and tinged with rufous on the wings; white underneath, a little sullied on the flanks and sides of the abdo-

men; and head, cheeks, ear-coverts, nape and sides of the neck, bright rufous: wings underneath partly edged with pale rufous: the upper mandible chiefly horny brown, and the lower pale yellowish; a few small black vibrissæ at the rictus, and legs and feet pale. Described from two specimens received from Bootan.

16. *Keropia striata*, G. Gray; *Garrulus striatus*, Vigors, *P. Z. S.*, 1831, 7, and figured in Gould's *Century*, pl. XXXVII. I quite agree with Mr. G. Gray with respect to the propriety of arranging this bird among the *Crateropodinae* of Swainson, and would also locate the genus *Kitta* as another pseudo-corvine member of the same extensive natural assemblage.

17. *Crateropus Nipalensis*; *Cinclosoma Nipalense*, Hodgson, *As. Res.* XIX. 146.

18. *Cr. chrysopterus*; *Ianthocincla chrysoptera*, Gould, *Proc. Zool. Soc.* 1835, 186.

In the "Natural History and Classification of Birds," ii. 234, Mr. Swainson has justly identified the *Ianthocincla*, Gould, (*Proc. Zool. Soc.* 1835, 47,) with his *Crateropus*, "published more than four years previously." Mr. G. Gray, however, in his "List of the genera of birds," (p. 27), has ranged *Ianthocincla* as a synonym of *Garrulax*, Lesson, and introduces *Crateropus* as a separate head; but most assuredly the *Cr. Reinwardii* of Swainson's 'Zoological Illustrations,' is a thorough *Ianthocincla*, apud Gould. Mr. Vigors referred the species described by him to his *Cinclosoma*, now properly restricted to the Australian form exemplified by *C. punctatum*, v. *Turdus punctatus* of Latham; and Mr. Hodgson has also described several species under the generic head *Cinclosoma*. The form is extensively represented on the Sub-Himalayan regions, both as respects species and individuals. Mr. Hodgson enumerates 14 species as inhabitants of Nepâl, of which 5 have been described by Mr. Vigors (in *Proc. Zool. Soc.* 1831, 55-6, and 171), and a sixth, the *Corvus leucolophus*, Lin., figured as *Garrulus leucolophus* in Gould's *Century*, was judiciously assigned by him to the same group. Since then Mr. Gould has described 5 other species (in *Proc. Zool. Soc.* 1835, pp. 48 and 186-7), which descriptions were unknown to Mr. Hodgson at the time he prepared his paper on the genus published in *As. Res.* XIX, 143 *et seq.* (bearing date of publication 1836), wherein 8 presumed new species are added to those of Vigors;

four of them, however, appearing to me to be identical with as many of Gould's. Lastly, in the catalogue of Dr. McClelland's Assam birds (*P. Z. S.*, 1839, 159-60), two more species are added, on the authority of Dr. Horsfield; and I now add two others, making 18 from the southern or Indian base of the Himalayan range.

The following amended list results from my analysis of the various descriptions referred to, while a study of the labours of foreign naturalists is still necessary to establish the nomenclature in all cases.

Cr. leucolophus; *Corvus leucolophus*, Lin., figured in Gould's *Century*, pl. XVIII. A variety, or perhaps a very closely allied species, is noticed in one of my Reports (*ante*, X, p. 924).

Cr. albogularis, Gould, *P. Z. S.*, 1835, 187; *Cinclosoma albigula*, Hodgson, *As. Res.*, XIX, 146. In both cases the near affinity to the preceding species is remarked.*

Cr. gularis; *Ianthocincla gularis*, McClelland and Horsfield, *Proc. Zool. Soc.*, 1839, 159: allied to the last species.

Cr. ocellatus; *Cinclosoma ocellatum*, Vigors, *Proc. Zool. Soc.*, 1831, 55, and figured in Gould's *Century*, pl. XV.

Cr. capistratus; *Cincl. capistratum*, Vigors, *Proc. Zool. Soc.* 1831, 55.

Cr. variagatus; *Cincl. variegatum*, Vigors, *Proc. Zool. Soc.*, 1831, 55, and figured in Gould's *Century*, pl. XVI.

Cr. lineatus; *Cincl. lineatum*, Vigors, *Proc. Zool. Soc.*, 1831, 55.

Cr. erythrocephalus, *Cincl. erythrocephalum*, Vigors, *Proc. Zool. Soc.*, 1831, 171, and figured in Gould's *Century*, pl. XVII.

Cr. squamatus; *Ianthocincla squamata*, Gould, *Proc. Zool. Soc.*, 1835, 48; *Cincl. melanura* (?), Hodgson, *As. Res.*, XIX, 147.

Cr. chrysopterus; *I. chrysoptera*, Gould, *Proc. Zool. Soc.*, 1835, 48.

Cr. rufogularis; *I. rufogularis*, Gould, *Proc. Zool. Soc.*, 1835, 48; *Cincl. rufimentata*, Hodgson, *As. Res.*, XIX, 148.

Cr. pectoralis, Gould, *Proc. Zool. Soc.* 1835, 186., McClelland and Horsfield, *Ibid*, 1839, 160; *Cincl. grisauris*, Hodgson, *As. Res.*, XIX, 146.

Cr. Nipalensis; *Cincl. Nipalense*, Hodgson, *As. Res.* XIX, 145.

Cr. monilegerus; *Cincl. monilegera*, Hodgson, *As. Res.*, XIX, 147.

Cr. cærulatus; *Cincl. cærulatum*, Hodgson, *As. Res.*, XIX, 147.

* At the time of writing this, I had not identified a specimen which I find that the Asiatic Society's Museum possesses of this species. It is considerably less allied to *Cr. leucolophus* than is my *Cr. leucogenys*.

Cr. lunaris; *I. lunaris*, McClelland and Horsfield, *Proc. Zool. Soc.*, 1839, 160.

Cr. puniceus, Nobis: length 8 inches, of wing from bend $3\frac{1}{4}$ inches, and middle tail-feathers 4 inches, the outermost $2\frac{3}{4}$ inches; bill to forehead $\frac{5}{8}$ inch, and to gape $\frac{7}{8}$ inch; tarsi $1\frac{1}{4}$ inch: streak through the eye, ear-coverts, sides of the neck, exterior margins of the primaries, and of the terminal portion of the secondaries and longest tertiaries, with the lower tail-coverts, glistening crimson: rest of the plumage a rich brown, rather paler beneath, and tinged with rufous on the wings; the tail dusky above, each feather tipped with rufo-ferruginous, and the lateral ones more broadly; beneath ruddy: feathers of the crown elongated, forming a lax crest as in various other species; those on the sides of the crown margined laterally with black, forming a superciliary streak: secondaries black interiorly, and partly margined with light grey. Bill dusky, and legs apparently brown: locality uncertain.

Cr. leucogenys, Nobis. More nearly allied to *Cr. leucolophus* than is *Cr. albogularis*, but crestless, though the frontal feathers stand erect and rigid. Length $10\frac{3}{4}$ inches, of wing $4\frac{1}{2}$ inches, and middle tail feathers $5\frac{1}{4}$ inches, the outermost 1 inch shorter; bill to forehead 1 inch, and to gape $1\frac{3}{8}$ inch; tarsi $1\frac{1}{2}$ inch. Crown, occiput, neck, and underparts, dark ash-colour; the forehead, lores, orbital region, streak from the eye backward, feathers at the base of the lower mandible, and the throat and fore-neck, black, as likewise the tip of the tail; ear-coverts white, and a little of this posterior to the black on the forehead: rest of the upper parts, with the thighs, vent, and lower tail-coverts, passing forward on the flanks, dark greenish olive-brown: primaries edged with greyish, and slightly albescant tips to the under surface of the outer tail feathers: bill dusky, and legs apparently greenish yellow. From Upper Bengal.

Besides these 18 species, two others have been described by Mr. Jerdon from the Neilghierries, as *Cr. cachinnans* (*Madr. Jl.*, No. XXV, 255, and there figured), and *Cr. Delleserti* (*Ibid*, 256); but I am unaware of any having been observed on the Malabar range, nor is any species noticed in Mr. Eyton's catalogue of a large collection of birdskins from the Malay peninsula (*P. Z. S.*, 1839, 101, et seq.); neither among the *Turdi* (comprising various modern genera) of Dr. Horsfield's list of Javanese birds (*Lin. Trans.*, XIII, 147, et seq.), and the

Sumatran species referred to *Turdus* by Sir Stamford Raffles (ibid, 309 et seq.), does there seem to be one appertaining to this genus. The *Cr. Reinwardii*, again, figured in Swainson's Illustrations, and which was formerly understood to have been received from some part of the Indian archipelago, has since proved to be an inhabitant of Western Africa, as noticed with three other species from that locality in the 7th Ornithological volume of the Naturalist's Library. Nevertheless, it can hardly be supposed but that many species inhabit the interior upland districts of the regions adverted to.*

Cinclidium, Nobis. The genus *Cinclidia*, Gould (*P. Z. S.*, 1837, 236), being identical with *Pellornium* of Swainson, I transfer the former name (with a slight alteration) to a nearly allied form, characterized as follows. Bill shorter than the head, straight, slender, higher than broad, the ridge of the upper mandible tolerably acute, and its tip very slightly emarginated; inferior gonys ascending for the terminal half, imparting to the bill the appearance of a tendency to bend upward: nasal apertures an elongate-oval fissure in the lateral nasal membrane, and partially impended by the short semi-reflected frontal feathers: gape armed with a few small setæ. Wings and tail rounded, the 4th, 5th, and 6th primaries equal and longest. Legs and toes slender, the tarsi smooth and unseutellate, and very long, as is also the middle toe; claws but moderately curved, and of little more than mean length. Plumage light, soft, and full, having a scale-like appearance on the crown, breast, and belly.

19. *C. frontale*, Nobis. Length $7\frac{5}{8}$ inches, of wing from bend $3\frac{3}{8}$ inches, and middle tail feathers $3\frac{1}{2}$ inches, the outermost $\frac{3}{4}$ inch shorter; bill to forehead nearly $\frac{5}{8}$ inch, and to gape $\frac{13}{16}$ inch; tarse $1\frac{3}{8}$ inch; middle toe and claw $1\frac{3}{16}$ inch, and hind toe and claw $\frac{3}{4}$ inch, the last $\frac{3}{8}$ inch. Plumage dark fusco-cyaneous, the rump dusky; flanks somewhat ashy, and middle of the belly slightly grey-edged; lores and immediately above the beak blackish, contrasting with a bright cœrulean forehead; bend of the wing also cœrulean, but less bright; and winglet, primaries and their coverts, secondaries and tertiaries, dark olive-brown; a white spot on the under surface of the wing, beneath the winglet: bill black, and legs dusky-brown. Darjeeling.

* My supposed variety of *Cr. leucolophus* (*J. A. S.*, X. 924,) was received from Tenasserim.

20. *Tesia* (subsequently *Anura*) *cyaniventris*, Hodgson, *J. A. S.*, 1837, 101; genus *Micrura* of Gould, the bird having a very distinct small tail. *Aipenunia*? Swainson,

21. *Alcopus* (olim *Sibia*) *nigriceps*, Hodgson, *J. A. S.*, 1839, 38. A specimen in nestling plumage only differs in the comparative shortness and flimsy texture of its clothing feathers, and the diminished brightness of their colouring.

22. *Prosorinia* (olim *Cochoa*) *purpurea*? Hodgson, *J. A. S.*, V, 359; n. s.? *Hodgsonii*? Nobis. This nearly agrees with Mr. Hodgson's description, but would appear to be smaller, with the wing-speculum not white, but of the same hue as the crown: the specimen is marked male. I annex a description: length 10 inches, of wing $5\frac{1}{2}$ inch, and tail $4\frac{1}{2}$ inches; bill to forehead $\frac{3}{4}$ inch, and to gape $1\frac{3}{16}$ inch; tarse $1\frac{1}{8}$ inch, middle toe and claw $1\frac{3}{16}$ inch, and hind toe and claw above $\frac{3}{4}$ inch. General hue slightly purpurescent-fuscout, the tail cyaneous-grey tipped with black, and wings mottled with darker cyaneous, pale blue-grey, and deep black: forehead, crown, and occiput, pale blue-grey, the feathers here being lengthened and somewhat loosely webbed, and laterally impending a broad black superciliary streak continued backward to the occiput; lores and ear-coverts also deep black, and the whole of the under-parts uniform fuscous: outer webs of the primaries (save the first one) pale blue-grey near the base, contrasting with the winglet which is black, as is also the remainder of the primaries; secondaries and tertiaries dark cyaneous, the former broadly tipped with black to an oblique line even with the longest tertiary; there is some pale grey also on the border of the wing anterior to the winglet, and the quills and tail are wholly black underneath. Bill black, and legs dusky. Darjeeling.

This genus, originally classed by Mr. Hodgson among the Thrushes, has since been regarded by him as Ampelidous, and intermediate to *Ampelis* and *Casmarhynchus*. It appears to me to bear some relationship to the *Leiotrichinae*. The *Ampelidae* possess at least one distinct oriental representative in *Calyptomena*, and an alleged Himalayan *Pipra* has been described by Mr. Burton (*P. Z. S.*, 1836, 113). The *Cra-taionyx* of Eyton (ibid, 1839, 104,) agrees with the two last genera in having syndactyle toes, and is perhaps also referrible to the same family; wherein the northern form *Bombycilla* has been generally

located. But the whole vast series of *Insesores* stands exceedingly in need of thorough revision by a naturalist of sufficient penetration to distinguish between mere superficial modifications bearing reference to habit, and the more immediate subtypes of form upon which such varied modifications are especially based.

23. *Heterornis* (olim *Cutia*) *Nipalensis*, Hodgson, *Journ. As. Soc.* 1836, 771. A singular form, not without some distant affinity to the last, but nearly related to nought with which I am acquainted.

24. *Pteruthius erythropterus*, Swainson; *Lanius erythropterus*, Vigors, *Proc. Zool. Soc.* 1831, 22, and figured in Gould's *Century*, Pl. XI. Female, differing from the figure in Gould's work by having the back and scapularies more tinged with cinereous, and the purer ash-grey of the head continued to beyond the occiput, and including the ear-coverts. A young male differs in the looser texture of its clothing feathers, in having the head and ear-coverts concolorous with the back, and the same defined white streak commencing above the eye as in the mature male; this being wanting, or only the merest trace existing of it, in the female.

25. *Pt. rufiventer*, Nobis, *n. s.*? Female allied to the preceding species, but differing in the disposition of its colours, in having a longer and more graduated tail, and in its beak being somewhat longer and more compressed, with the terminal hook of the upper mandible rather less developed. Length $7\frac{5}{8}$ inches, of wing from bend barely $3\frac{1}{2}$ inches, and middle tail feathers $3\frac{3}{8}$ inches, the outermost $1\frac{1}{8}$ inch shorter; bill $\frac{5}{8}$ inch to forehead, and 1 inch to gape; tarse $1\frac{1}{8}$ inch. Back and scapularies vivid olive-green, a little mingled with black, which may be the predominant colour of these parts in the male: forehead, lores, super-orbitary region, sides of the head, ear-coverts, throat, and breast, ash-grey, passing into deep black on the crown, which colour is continued over the occiput and nape: rest of the under-parts dull ferruginous, with an ill-defined broad zone of saffron across the lower part of the breast, bordering the grey: upper tail-coverts, and tips of the secondaries and of the longest tertiary, together with those of all the tail-feathers, deep ferruginous: wings principally green externally, the winglet and primary-coverts black, and all but the two outermost primaries more or less edged with whitish-grey, towards the tip only in the more inward, the rest of the edging being green: internally all the

wing-feathers are black, the secondaries narrowly edged, and the tertiaries broadly, with green; the under-surface of the wings is fulvescent-white where pure white in *Pt. erythropterus*: uropygials green with black shafts; the next pair of tail-feathers having a green outer-margin increasing in breadth towards the base, and the rest of the tail wholly black, excepting the rufous tips before noticed: the three outermost rectrices successively graduate in length, while the others are sub-equal. Bill black, and legs apparently light brown.

26. *Leiothrix calipyga*: *Calipyga* (olim *Bahila*) *calipyga*, Hodgson, *Ind. Rev.* 1838, 88.

27. *L. cyanoptera*: *Hemiparus* (olim *Siva*) *cyanoptera*, Hodgson, *Ind. Rev.*, 1838, 88; *Leiothrix lepida*, McClelland and Horsfield, *P. Z. S.* 1839, 162.

28. *L. strigula*: *H. strigula*, Hodgson, *Ind. Rev.* 1838, 89.

The Asiatic Society's Museum contains examples of three species of this elegant group, viz. *cyanoptera*, *ignotincta* (*Proparus*—olim *Minla-ignotinctus*, Hodgson, *Ind. Rev.*, 1838, 32, seu *Leiothrix ornata*, McClelland and Horsfield, *P. Z. S.*, 1839, 162), and *Nipalensis* (*Hemiparus*—olim *Siva-Nipalensis*, Hodgson, *Ind. Rev.* 1838, 89). The *L. signata*, McClelland and Horsfield, *P. Z. S.*, 1839, 162, is clearly distinct from any of those of Mr. Hodgson, who further describes *L. (Proparus, olim Minla,) castaniceps*, (*Philocalyx, olim Mesia,) argentauris*, and (*Hemiparus, olim Siva,) vinipectus*. I do not myself perceive the necessity of subgenerically dividing them, and much suspect that several will prove to have prior appellations. The *Polyodon* (olim *Yuhina*), Hodgson, *As. Res.* XIX, 165, to judge from the Society's specimens of *P. flavicollis* (referred with a note of doubt to this genus by Mr. Hodgson), would seem to be closely allied.

29. *Parus flavocristatus*, de Lafresnage; *Mesange á huppe jaune*, Guerin, *Mag. Zool.*, Pl. LXXX, Janvier, 1837, apud Horsfield: *P. sultaneus*, Hodgson, *Ind. Rev.* April, 1837, p. 81.

30. *Tricophorus striatus*, Nobis. Female: the sexes, however, reported to be similar. Length $8\frac{3}{4}$ inches, of wing $4\frac{1}{2}$ inches, and tail 4 inches; bill to forehead $\frac{5}{8}$ inch, and tarse under $\frac{3}{4}$ inch. General colour olive-green, brightest on the wings and rump, the crown and back darker, with a tinge of cinereous on the latter, and the feathers of these parts having a narrow white mesial streak occupying their shafts: occipital plumes elongated.

but having no hair-like stems intermixed : chin, a streak from the nostril to near the eye, the fore-part of the wings underneath, and the lower tail-coverts, bright yellow ; a tinge of the same on the throat, fore-neck, and belly, the feathers of the fore-neck being each tipped with a black spot : breast and ear-coverts whitish, tipped and laterally margined with greyish-black, the tips becoming obsolete on the belly : tail dusky, having its exterior webs greenish to near the end, and tinged with yellow underneath ; the two outermost rectrices, and the third to a less extent, tipped chiefly on the inner vane with yellowish white. Bill blackish, and legs dusky-brown.

This species would seem to be allied to *Tr. flaveolus*, Gould (*P. Z. S.* 1836, 6), which is also from the Himalaya, and was met with by Dr. McClelland in Assam. "*Tr. cristatus, supra olivaceo-flavescens ; genis guttureque sordide albis. Long. tot, 8 unc ; rostri, 6 ; alæ, 4 ; caudæ, 3½ ; tarsi, ¾ ; Rostrum pedesque corneo-brunnei.* The crest," it is added, "consists of elongated feathers, intermingled with the hairy bristles usual in the genus." The same species is thus described by Dr. McClelland. "Length 8 inches. Colour yellowish-green above, with a tinge of brown on the wings and tail, beneath bright yellow : crested with narrow feathers, becoming progressively longer from the nostrils to the crown : bill strong, compressed, and slightly hooked ; cheeks and nape scantily covered with feathers." (*P. Z. S.* 1839, 158).

Mr. Jerdon adds to the Indian species of this genus a bird which he conceives to be the *Turdus Indicus* of the old authors, and which he briefly describes as follows, by the appellation of *Tr. Indicus*, remarking that the *Tr. flaveolus*, Gould, appears to differ only in being crested. "Length $7\frac{1}{2}$ to 8 inches, wing 4 inches, tail $3\frac{1}{2}$ inches, tarsus rather more than $\frac{7}{10}$ ths. Above olive green ; eye-streak (extending to the forehead), and beneath, yellow ; bill and legs black ; irides blood-red. This bird frequents only thick and lofty jungle on the West Coast, being found occasionally as high as 5000 feet. It lives in small flocks, flying from tree to tree, and keeping up a continual and pleasing Bulbul-like warble. In all the specimens I have examined, I have found fruit only in its stomach ; but from the strong bristles at the base of the bill, I suppose it may, at certain seasons, partake of insects. The same gentleman assigns to this genus, at least provisionally, the *Ixos virescens*, Tem., and a typical species exists in the Javanese *Turdus gularis*, Hors-

field, described as follows: *T. fuscescente olivaceus alis caudâque ferrugineis, gula alba, abdomine flavo. Remiges internè fusce; vertex griseo ferrugineus; axillæ flavescentes. Longitudo 7 poll.*" (*Lin. Trans.* xiii, 150). To these may be added *Tr. crispiceps*, nobis, described in my Report for February as an inhabitant of Tenasserim and the Malay Peninsula.

31. *Pycnonotus* (Kuhl; *Brachypus*,* Swainson;) *melanocephalus*, Hardwicke and Gray; *Vanga flaviventris*, Tickell, *J. A. S.* II. 573.

32. *Hypsipetes psaroides*, Vigors, *P. Z. S.* 1831, 43, and figured in Gould's *Century*, pl. x. A very closely allied species to this has recently been discovered on the Neilgheirries, the *H. Neilgheiriensis*, Jerdon, *Mad. Jour.* No. xxv, 245, and there is another in the Indian Peninsula, the *H. Ganeesa*, Sykes, *P. Z. S.* 1832, 86, and figured in Jardine and Selby's *Illustrations of Ornithology*, pl. cxlvii. Two more are described in the list of Dr. McClelland's birds procured in Assam, as *H. McClellandii*, Horsf., and *H. gracilis*, *P. Z. S.* 1839, 159.

33. *Chloropsis Hardwickii*; Jardine and Selby, *Ill. Orn.* ii, Appendix; *Chl. cyanopterus*, Hodgson; *Chl. chrysogaster*, McClelland and Horsfield, *P. Z. S.* 1839, 167.—Vide my Report for January.

Heterophasia, Nobis, *n. g?* A curious Meruline form, exhibiting affinity for various distinct genera, but which cannot be immediately approximated to any with which I am acquainted. It has long rounded wings, a very long and much graduated tail, slender and slightly curving bill, and rather short tarsi. Bill longer than the head, slender, tapering, a little incurved, its base as high as broad, and gradually more compressed for the basal $\frac{3}{4}$ ths; the ridge of the upper mandible distinct (but not sharp) to beyond the nostrils, then rather less so, and its tip very slightly if at all emarginated: nostrils somewhat large, and almost closed by impending membrane, the nasal orifices appearing as mere fissures on the inferior margin of this, though more apart anteriorly: a few small setæ at the gape. Tarse somewhat longer than the middle toe; and the claws compressed and suited for perching. Wings having the 5th or 6th primary longest, and the 7th equal to the 4th. Tail broad and very much lengthened and graduated. The plumage throughout is soft, dense, and smooth; the wings and tail tolerably firm.

* "Previously employed in other branches of Natural History."—G. Gray.

34. *H. cuculopsis*, Nobis. Length $12\frac{1}{2}$ to 13 inches, of wing from bend $4\frac{7}{8}$ inches, and middle tail-feathers $7\frac{1}{2}$ to 8 inches, the outermost $4\frac{3}{8}$ inches shorter, and all the rest graduating; bill to forehead $\frac{7}{8}$ inch, and to gape $1\frac{1}{8}$ inch; tarse 1 inch. General colour greyish-fuscon on the upper parts, beneath dark ashy, becoming paler on the belly; medial third of the outer webs of four of the secondaries white, forming a moderately large wing-spot; the rest of the wing, and the tail feathers, dusky, all the latter having broad whitish-grey tips: forehead and lores black. Bill and feet blackish. Some (females?) have a brownish cast of general colouring, which is not observable in others. At a first glance, this bird is apt to be mistaken for *Cuculidous*; an appearance to which its large and lengthened graduated tail, each feather tipped with whitish, its incurved bill, and the general hue of its colouring, alike contribute. From Darjeeling.

35. *Accentor Himalayanus*? Allied to *A. Alpinus*, but little larger than *A. modularis*. Length 6 inches, wing $3\frac{3}{8}$ to $3\frac{1}{2}$ inches, tail $2\frac{1}{4}$ inches, bill to forehead $\frac{1}{2}$ inch, and tarse nearly $\frac{7}{8}$ inch; scapularies and interscapularies rufous-brown, mottled with large black terminal spots on the middle of each feather, more or less developed in different specimens: forehead, crown, occiput, neck, shoulders of the wings, and rump, nearly uniform dingy grey-brown, with an inconspicuous lighter greyish eye-streak; throat and fore-neck white, with small round black spots disposed as in *A. Alpinus*; ear-coverts streaked with fulvescent, and small loreal and infra-orbital feathers tipped with fulvous-white; gorget brown, more or less tinged with rufous, which latter brightens on the lower breast, flanks, and sides of the belly, the feathers being laterally edged with white, and some having dark streaks on the flanks posteriorly: lower tail-coverts white, with lanceolate central dusky spots: wings intricately mottled, having the anterior range of coverts dusky-black with white tips, the next or great range fulvescent-grey exteriorly at base, and dusky-black for the remainder with slight whitish tips: primaries edged with grey, secondaries with brown, and tertiaries with fulvous: tail dusky, having a large white spot at the tip of the outer web of each feather. Bill black, and legs reddish brown. This is a typical *Accentor*, and the first which to my knowledge has been obtained on the Himalaya range, though *A. Alpinus* is included in M. Temminck's list of European birds inhabiting Japan. *A. modularis* has been killed near Smyrna in winter (*P. Z. S.*, 1836, 98), where stated to be

rare. Referring to Mr. Yarrell's work on British birds, I perceive it remarked that a species of this genus has been received from the Himalaya, which is probably that here described.

36. *Pitta nuchalis* ? Nobis, n. s. ? Length $9\frac{1}{4}$ inches, of wing $4\frac{7}{8}$ inches, tail $2\frac{3}{4}$ inches, bill to forehead $1\frac{1}{8}$ inch, and to gape $1\frac{3}{8}$ inch, its vertical depth at base above $\frac{3}{8}$ inch, and tarsus 2 inches. Above shining dingy green, passing into fulvescent-brown on the scapularies and wings; the back of the neck verditer-blue; and the occiput above it greenish: crown, sides of the head, and under-parts, dull rufous-brown, paler on the forehead and throat; bill robust, and caraneous-tinged with dusky; the legs apparently pale caraneous. Specimen marked male.

37. *Turdus* (*Oreocincla*, Gould,) *Whitei*, Eyton.

38. *T. mollissimus*, Nobis. Equally allied to *T. Whitei* and the European *T. musicus*, this handsome species can hardly be placed in a subdivision typified by either of these apart from the other, though I think it approaches nearest to *T. musicus*. It is, however, considerably larger, a female measuring $9\frac{1}{2}$ inches long, the wing from bend $5\frac{3}{8}$ inches, and tail 4 inches. Bill shaped as in the Mavis Thrush (*T. musicus*), and $\frac{15}{16}$ inch to forehead, to gape $1\frac{1}{8}$ inch; tarsus $1\frac{3}{8}$ inch: 3rd and 4th primaries equal and longest, the 5th a little shorter, the 2nd above $\frac{3}{8}$ inch shorter than the 3rd, and the first diminutive. Plumage remarkably dense and soft in texture, having a smooth surface, and of a uniform rich brown colour above, with a slight cast of orange, being very nearly that of the back of an English Robin: wing-coverts and tertiaries slightly margined with paler, except the greater coverts of the primaries, which are tipped with blackish; the inner webs of the primaries are dusky, and their outer webs are emarginated as in *T. musicus*; the under-surface of the wing is marked with black and white, as in the *Oreocincla*: tail also displaying an affinity to the latter group, its four middle feathers being brown like the back, the outermost pair albescent-brown with a whitish tip, the two next having successively less white at the tip, and the remainder of the tail being blackish: under-parts clear fulvous, deepest on the breast, and becoming whitish along the centre of the belly; very richly spotted with deep black, and much more densely than in *T. Whitei*, the spots forming broad transverse crescents below the breast, and being of a triangular form upon the latter, the throat, and front of the neck: orbits, and a streak from the

bill to the eye, pale fulvous; but none of this passing over or beyond the eye. Bill dusky-yellowish at the base of the lower mandible, and legs light-brown. So far as I can remember the African *T. guttatus*, Vigors, (*P. Z. S.* 1831, 92,) it seems nearly allied to that species.

39. *T. Naumanni*, Temminck; which the Asiatic Society has also received from Nepâl.

40. *T. (Merula) pæcilopectera*, Vigors, *P. Z. S.* 1831, 54, and figured in Gould's *Century*, Pl. xiv.

41. *T. (Petrocincla) erythrogaster*, Vigors, *P. Z. S.* 1831, 174, and figured in Gould's *Century*, Pl. xiii. The young has a large angular whitish spot upon each feather, which is further tipped with blackish; differing thus considerably from the adult female, as the latter does from the male.

42. *Chaitaris* (Hodgson, *J. A. S.* 1841, 29, olim *Niltava*, H., *Ind. Rev.*, 1837, 651,) *grandis*, Nobis. Length $8\frac{1}{4}$ to $8\frac{1}{2}$ inches, of the female 8 inches; of wing respectively $4\frac{1}{8}$ and $3\frac{7}{8}$ inches, and tail $3\frac{7}{8}$ and $3\frac{5}{8}$ inches; bill to forehead $\frac{3}{4}$ inch, and to gape $\frac{15}{16}$ inch; tarse $\frac{7}{8}$ inch. Colour of the upper parts precisely as in *Ch. sundara*, Hodgson, except that the purple hue of the back is considerably brighter; or, to particularize, the crown, a large spot on each side of the neck, the shoulders of the wing, and the rump, are brilliant lazuline, and the rest of the upper-parts glossy dark purple: forehead, lores, cheeks, ear-coverts, throat and breast, deep black, without any purple gloss; the belly empurpled-black, (as much so as the back of *Ch. sundara*,) and passing into ashy on the vent and lower tail-coverts: under surface of the wings and tail black, as likewise the bill; and the legs dusky-black. The female entirely resembles that of *Ch. sundara*, except in its much larger size, and in having a rufous tinge on the under-parts generally, but especially on the throat, while the white gorget of *Ch. sundara* is totally absent. From Darjeeling, and I am informed that it also inhabits Tenasserim.

43. *Ch. sundara*, Hodgson. Two other species are described by that naturalist, viz. *Ch. McGregorii* (*Phænicura McGregorii*, Burton, *P. Z. S.* 1835, 152, *Ch. fuligiventer*, Hodgson), and *Ch. rubeculoides* (*Phænicura rubeculoides*, Vigors, *P. Z. S.* 1831, 35, and figured in Gould's *Century*, Pl. xxv. 1, seu *Ch. brevipes*, Hodgson).

Dimorpha, Hodgson, *J. A. S.*, 1841, 29, olim *Siphya*, H., *Ind. Rev.*

1839, 651. The following two species are evidently referrible to this division, which is allied to the preceding one, and borders closely upon *Cryptolopha* of Swainson.

44. *D. superciliaris*, Nobis. Length $4\frac{1}{2}$ inch, of wing from bend $2\frac{1}{2}$ inch, tail $1\frac{3}{4}$ inch; bill to forehead $\frac{7}{16}$ inch, and to gape $\frac{9}{16}$ inch; tarse $\frac{11}{16}$ inch. Colour of the upper-parts, chin, and sides of the neck, uniform dusky-cyaneous, the lateral feathers of the forehead white-tipped, passing as a streak over but not beyond the eye; bases of the primaries and secondaries rufous-brown exteriorly, contrasting with the hue of their coverts; throat and breast light ferruginous, paling on the belly, and passing into white on the vent and lower tail-coverts. Bill black, and legs very slender and apparently dusky-plumbeous. Fifth primary rather the longest. Specimen marked male.

45 *D. albogularis*, Nobis. Length $4\frac{1}{2}$ inches; of wing $2\frac{7}{16}$ inches, and tail $1\frac{3}{4}$ inch; bill to forehead $\frac{7}{16}$ inch, and to gape above $\frac{9}{16}$ inch; tarse $\frac{9}{16}$ inch. Colour of the upper-parts, sides of head and neck, and across the breast, uniform dark cyaneous, much brighter than in the preceding species; the throat, fore-neck, and under-parts below the breast, pure white: bill black, and legs dusky black. Third and fourth primaries sub-equal and longest.*

46. *Phaenicura frontalis*, Vigors, *P. Z. S.*, 1831, 172, and figured in Gould's *Century*, Pl. xxvi. 1; differing, however, somewhat in colouring from that figure, inasmuch as the head and neck, back and wings, are not black, but dusky-cyaneous, having terminal brown winter edgings, the forehead and above the eye being much brighter. The specimens of *Ph. atrata*, Jardine and Selby (*Ill. Orn.* Pl. lxxxvi), also, which I have seen, differ from that figure in wanting the bright rufous margining of the wing-feathers, which are edged with greyish, having but a slight rufous tinge on the border of the tertiaries only. The Museum of the Asiatic Society contains also the *Ph. fuliginosa*, Vigors, *P. Z. S.* 1831, 31, being evidently the same as has been since described by Mr. Gould as *Ph. plumbea*, *Ibid*, 1835, 185; likewise *Ph. leucocephala*, Vigors and Gould; and another Indian (and presumed Chinese) species, which I do not know, is the

* The Asiatic Society has since received this species from Chyebassa, in Central India.

Ph. Reevesii, Gray, Zool. Misc., which was procured by Dr. McClelland in Assam : the *Ph. cæruleocephala*, Vigors and Gould, seems but doubtfully referrible to this group. In Western India, the European *Ph. albifrons* (or *ruticilla*) is met with, and very probably also, the *Ph. tithys*, though I am not aware for certain of the latter having been observed further to the eastward than on the bare rocky hills about Smyrna, where it is common ; the *Ph. albifrons* is included by M. Temminck among the birds of Japan.*

47. *Phillopneuste reguloides*, Nobis. This species approaches very closely to the *Regulus modestus*, Gould ; but to judge from recollection of the original specimen of that rare bird, and also from the dimensions ascribed to the second specimen obtained (vide *An. Nat. Hist.*, ii, 310), which was in England, the former having been killed in Dalmatia, I conclude it to be different, and to be further removed from the genus *Regulus*, an undescribed crestless species of which is also before me. Length $4\frac{3}{8}$ inches, of wing $2\frac{1}{4}$ inches, and tail $1\frac{3}{4}$ inch ; bill to forehead nearly $\frac{1}{2}$ inch, and to gape $\frac{9}{16}$ inch ; tarse $\frac{11}{16}$ inch ; 4th and 5th quills equal and longest, the 3d and 6th a trifle shorter, and also equal. General colour of the upper parts yellowish olive-green, brightest on the wings, which have the inferior margin pure yellow anteriorly, and the tips of their greater and lesser coverts pale yellowish, forming two cross-bands ; under-parts albescent, streaked with yellow as in *Ph. trochilus* : sides of the crown ashy, mingled with olive-green, and passing into dusky on the sides of the occiput, being traversed by a conspicuous sulphur-yellow superciliary streak ; along the centre of the head the ashy tint is wanting, leaving a narrow greenish-yellow mesial line, best seen when the bird is held at a little distance. Bill, which is strictly that of the present group, and not of *Regulus*, dusky-brown above, the lower mandible yellow : feet delicate, and apparently light-brown tinged with plumbeous. The *Ph. rufa*, or British Chiffchaff, I may remark, is common in the neighbourhood of Calcutta during the cool season.

Regulus inornatus, Nobis. Length $3\frac{7}{8}$ inches, of wing $2\frac{1}{8}$ inches, and tail $1\frac{5}{8}$ inch : bill to forehead $\frac{3}{8}$ inch, and to gape nearly $\frac{1}{2}$ inch ; tarse

* *Ph. atrata* is common in the neighbourhood of Calcutta, and extends throughout the Indian peninsula, where two new species have lately been described by Mr. Jerdon, in his *supplement*, as *Ph. Major* and *Ph. superciliaris*.—E. B.

barely $\frac{3}{4}$ inch. General colour and markings similar to those of *R. auricapillus*, excepting on the head, the black band at the base of the outer webs of the secondaries of that species also wanting, and the whitish tips of the tertiaries extending further up the outer margin of those feathers: crown wholly green like the back, with no trace of a mesial crest, nor even the lateral dusky lines seen in the nestling plumage of the crested species; but a pale superciliary streak, bordered underneath with dusky-greenish on the upper ear-coverts, the rest of these being pale yellowish. Bill typical in shape, but no single plume (as usual) impending the nostrils, any more than in *R. modestus*; its colour pale, especially at the base of the lower mandible, and legs apparently light brown. Locality of the specimen unknown, but I am told that this bird inhabits the vicinity of Darjeeling.

48. *Budytes citreola*, Auct.

49. *Oriolus Traillii*, Hodgson, *J. A. S.*, vi, 110; *Pastor Traillii*, Vigors, *Proc. Zool. Soc.*, 1831, 175; *Psarophilus Traillii*, Jardine and Selby. I entirely agree with Mr. Hodgson in considering this fine species to be a true Oriole.

50. *Pericrocotus* (Boie, *Acis*, Lesson, *Phanicornis*, Swainson,) *brevirostris*, Vigors and Gould. Both sexes, the female differing from Gould's figure, (which is now referred to *P. affinis*, McClelland, *P. Z. S.* 1839, 157,) by having the throat much brighter yellow, and more of this colour on the forehead to above the eyes; they are clearly enough identical in species with the crimson-breasted males in the same collection.*

51. *Cinnyris Nipalensis*, Hodgson, *Ind. Rev.* 1837, 273.

52. *C. Gouldii*, Vigors, *P. Z. S.* 1831, 44, and correctly figured in Gould's *Century*, Pl. lvi.

53. *C. saturata*, Hodgson, *Ind. Rev.* 1837, 273; *C. Assamensis*, McClelland and Horsfield, *P. Z. S.* 1839, 167.

54. *C. rubricaudata*, Nobis. A very magnificent new species, described in a Monograph of the Oriental *Cinnyridæ* which I have lately drawn up.

55. *Linota saturata*, Nobis. A large species, belonging to the subdivision typified by *L. minor*. Length of a male 6 inches, of wing from bend

* I cannot help suggesting that *Ph. affinis* is no other than the immature male of *brevirostris*, which may require more than one season to attain its livery of maturity.

$3\frac{1}{2}$ inches, and tail externally $2\frac{5}{8}$ inches; bill to forehead above $\frac{7}{16}$ inch, and tarse $\frac{3}{4}$ inch; 2nd and 3rd primaries equal and longest, the 4th and 1st successively a trifle shorter. Summer aspect of plumage uniform dusky above, inclining to greyish on the shoulders and rump, and everywhere margined with dark claret-red; throat, and occipital stripe commencing at each eye, with the lower parts below the breast, fine dark roseate; crown and breast margined with deeper claret-red; tail a little forked, and dusky; wings dusky-brown, their coverts margined with dull-red, the tertiaries towards the end of their outer webs with ruddy-brown, and the primaries with pale brown: bill shaped as in a British Redpole, or nearly as in *Carduelis*, and dusky above, paler beneath; feet dark brown.

56. *L. fusca*, Nobis. Allied to *L. cannabina*, but the beak more lengthened and bulging laterally about the middle, wherein it differs from *L. saturata* and the other Redpoles. Length of a female $5\frac{3}{8}$ inches, of wing $3\frac{1}{8}$ inches, and tail externally $2\frac{1}{8}$ inches, being a little furcate; bill to forehead $\frac{1}{2}$ inch, and tarse $\frac{5}{8}$ inch: 3 first primaries sub-equal, the 2nd somewhat the longest, and the 4th shorter than the first. Colour uniform dull ashy olive-brown, a little fainter below, and paled on the middle of the belly and tips of the under tail-coverts: the back having a very slight cast of orange, more developed on the rump and upper tail-coverts, where mingled with dull red; wings and tail dusky, more or less edged with orange brown: bill dusky above and at the tip, the lower mandible paler: feet pale brown.

I shall now conclude by describing three other species of birds which I suspect are new.

Pica megaloptera, Nobis. This is the fourth species of true black and white Magpie with which I am acquainted, and it is readily distinguished from the others by its larger size, and more particularly that of the wings, while the tail is proportionally less elongated, and by the absence of any grey band across the rump. Length 18 to 20 inches, of wing from bend $9\frac{1}{4}$ to $9\frac{3}{4}$ inches, and middle tail feathers 10 to $10\frac{3}{4}$ inches; bill to commencement of frontal plumes $1\frac{1}{2}$ to $1\frac{5}{8}$ inch, and tarse 2 to $2\frac{1}{8}$ inches. Plumage and markings exactly similar to those of the Common Magpie, except that the glosses are somewhat different (as I observed upon formerly comparing two specimens in the Asiatic Society's Museum with examples of the true British Magpie

brought by Dr. Cantor from Chusan) ; and the plumage of the rump is everywhere broadly black-tipped, through dull cinereous within. Inhabits Bootan.

Ampeliceps, Nobis. Allied to *Pastor*, but the bill more sharp-pointed and widening to its base, having the terminal third moderately compressed, and the ridge of the upper mandible obtusely angular ; nostrils large and impended by bristly feathers, and the gape unarmed. Tarse and toes much shorter and more robust than in *Pastor*, the former not exceeding in length the middle toe with its claw, and the claws also rather short, stout, and much curved. Wings reaching beyond the middle of the tail, having the first primary minute, the 2d and 3d nearly equal, the second being longest. Skin thick, and plumage rather firm and glossy.

A. coronatus, Nobis. Length 8 inches, of wing from bend $5\frac{1}{8}$ inches, and tail $2\frac{5}{8}$ inch ; bill to forehead $\frac{3}{4}$ inch, and to gape 1 inch ; and tarse $\frac{7}{8}$ inch. General colour black with a steel shine ; the forehead, lores, crown and occiput, chin and throat, together with a large wing-spot on the base of the outer webs of the primaries excepting the first one,—bright yellow ; the coronal feathers slender and rigid, and those of the sides of the forehead erect and curving over towards the mesial line, forming a frontal crest somewhat resembling that of *Pastor cristatellus* : inner webs of all the primaries yellowish-white at base, producing a large mark of this colour on the under surface of the wing. Bill dusky black, and legs apparently yellowish-brown. Tenasserim.

Timixos, Nobis. A puzzling form, as regards its exact position, combining the characters of many very different genera. The bill is quite *Parian*, or shorter than the head, strong, higher than broad, the ridge of the upper mandible obtuse, and its tip slightly emarginated ; both mandibles are nearly of equal length, having their outlines distinctly accurved : nasal orifices a round aperture in the fore-part of the nasal membrane : the gape feebly bristled. Tarse elongated and slender, the toes moderate, the outermost longer than the inner toe, and the claws compressed, that on the hind toe much the strongest and the most curved. Wings having the 4th and 5th primaries equal and longest, the 3d being a trifle shorter : tail even, and otherwise much resembling that of *Tricophorus*. The wings and tail are tolerably firm, but the rest of the plumage is excessively light, soft, and unsubstantial.

T. meruloides, Nobis. Length $7\frac{1}{2}$ inches, of wing $3\frac{7}{8}$ inches, and tail the same; bill to forehead $\frac{9}{16}$ inch, and to gape $\frac{13}{16}$ inch; tarse $1\frac{1}{8}$ inch. General colour dull brown, paler underneath, and having a slight rusty tinge on the rump, flanks, and belly; throat and fore-neck whitish, indistinctly spotted with brown; tail slightly washed with yellow, as more conspicuously seen on its under surface; the greater wing-coverts, and tertiaries in part, rufous-edged, and a faint trace of yellowish on the margins of the primaries and secondaries. Bill dusky, and legs brown, neither light nor dark. Locality uncertain.

The two last, with the other new generic forms indicated in this paper, are all of very distinct character, insomuch that the propriety of their separation will hardly be disputed, though it may be that at least part of them bear prior appellations, and that some of my presumed new species have been described in works to which I have not access. This, however, is a chance to which all who venture on proposing a name must be liable, and I trust that if I have failed in identifying some species which are even tolerably well known, this will have been compensated by the number of synonyms which I have succeeded in reducing, while, at all events, until such pre-bestowed terms can be learned, those here applied will still be temporarily useful as substitutes, and I think I need hardly add that I have duly laboured in every instance in endeavouring to find a name, before venturing to coin those provisional ones which I have ultimately resolved upon proposing.

Feb. 26th, 1842.

Proceedings of the Asiatic Society.

(*Friday Evening, 4th February, 1842.*)

The Honourable H. T. PRINSEP, Esq. President, in the Chair.

E. B. RYAN, Esq. proposed at the last Meeting, was ballotted for and duly elected a Member of the Society.

Ordered, that the usual communication of his election be made to Mr. RYAN, and that he be furnished with the rules of the Society for his guidance.

Sir E. RYAN and Dr. EWALD were also elected Honorary Members of the Society.

Library.

The following Books were presented:—

List of Books received for the Meeting on the 4th February, 1842.

	<i>Vols.</i>
Naturalist's Library.—Mammalia, vol. 11th, Marsupials, Edinburgh, 1841, ..	1
Transactions of the Agricultural and Horticultural Society of India, vol. 8th, ..	1
Annals and Magazine of Natural History, vol. 8th, No. 48,	1
Programme de la Société Royale D'Agriculture et de Commerce de Caen,	P
The Calcutta Christian Observer, new series, vol. 3rd, No. 26, Feb. 1842,	1
The Calcutta Monthly Journal, 3rd series, Nos. 83 & 84, October and November, 1842,	2

The Secretary presented a model of a Ceylon Boat, casts of Zodiacal Coins, also some casts of other miscellaneous Coins. A box of Coins collected in Kunnouj were likewise presented by Lieut. MCGREGOR, 66th Regt. N. I.

Read Letter from Mr. Secretary BUSHBY of 31st January 1842, with two small boxes, containing two specimens of Porcelain Clay, marked Nos. 1 and 2.

“The specimen, No. 1,” writes the Principal Collector of Canara, “was taken from a hill on the South bank of the Baloor river, a little to the North of Mangalore, and within a mile of the Sea. A small stream of water flows from the place whence it was taken, which appears to make it clear, and more free from particles of Late-rite than the other specimens. The clay taken from this spot is used as chunam for white-washing houses, and also by the Sepoys as pipe clay for cleaning their belts. The specimen No. 2, was taken from the face of a hill a short distance from the former spot.”

Read Letter from G. T. LUSHINGTON, Esq., Commissioner of Kemaon, of 25th January, 1842, advising the dispatch per dāk bangy, for presentation to the Society, of a doom, or brick of Tea, which was brought to Almorah from Tuklakote by the Ex-com-mandant of that place, by name Bustee Ram. Mr. LUSHINGTON writes, "The Tea is packed or pressed together in the usual manner, and I suspect there is Soda or Salt mixed in it; at least I find it rather brackish in taste. One of the merchants of this place, (Almorah,) who engages in the Bhote trade, tells me, that this doom is of the second quality, (Junjhoo,) and it is worth about six or seven rupees. The same informant has given me the following memorandum regarding price and quality of Teas brought down to Tuklakote by the Thibet traders, and there purchased by our Bhotias.

"1st Quality, Loodhan; value per doom, 12 rupees.

"2nd Quality, Junjhoo; value per doom, 6 to 7 rupees.

"3rd Quality, Chinchoo; value per doom, 5 to 6 rupees.

"The doom weighs $3\frac{1}{2}$ to 4 seers."

Read Letter from Lieut. S. R. TICKELL, of 19th January, 1842, advising departure of Gomes, the Taxidermist, who had left Chybassa, in consequence of having caught a fever, also forwarding a bill for Gomes's pay, &c. up to the 15th January, 1842, amounting to Co.'s Rs. 168 : 1.

Lieut. TICKELL writes, "He (Gomes) takes with him a chest full of such birds, &c. as have been collected. I have sent a catalogue with it. I am now employing a Mussulman to preserve whatever I can pick up in my rambles. He gets now 5 Rs. a month, and has been promised more when he thoroughly knows his work; but in case of my not being successful in obtaining really valuable specimens, I shall not expect the Society to remunerate me for this expence, as it is a very trifling one."

Read observations on the genus *Spathium*, by M. P. EDGEWORTH, Esq., of the Bengal Civil Service, which will be published in the Journal.

Read Letter of 3rd February, 1842, from Mr. E. BLYTH, Curator of the Museum, recommending, as an able and experienced travelling Collector of Zoological specimens, who could aid him very materially in investigating the animal productions of this country, Mr. M. HOLQUETT, a former Assistant of Monsr. Duvaucel, who offers his services for a Salary of Rs. 50 per mensem, exclusive of travelling charges, which are to be paid to him separately.

The foregoing recommendation having been referred to the Committee of Papers, with the proposal of employing Mr. HOLQUETT experimentally on a Salary of Rs. 40

per mensem, with Rs. 10 per mensem additional, should his work give satisfaction, with a view to send him to Darjeeling to be under the orders of Dr. CAMPBELL and others; it was resolved to engage Mr. HOLQUETT, on the terms specified for six months, subject to special report at the end of that period.

The Honourable the President having audited the accounts for the past year (1841), laid before the Meeting of January, ordered that they be printed.

TO H. TORRENS, Esq.

Secretary, Asiatic Society.

SIR,

In the latter part of the month of September 1840, you did me the kindness to confer upon me the appointment of Accountant to the Asiatic Society of Bengal, and the year 1841 having just expired, I do myself the honor to submit my Account Current, closed to the 31st Dec. 1841, exhibiting in favor of the Society, Co's. Rs. 19,516: 1: 9; viz.

In cash,	1,849	7	1	
In custody of the Govern- ment Agents in the 5 per cent. Loans,	17,666	10	8	Co's. Rs. 19,516 1 9
	<hr/>			<hr/>

I am not aware that it is necessary for me to enter into any detailed explanation as regards the accounts, but I may be permitted to draw attention to the following circumstances:—

1st. That the Society have become enriched during the last 15 months in its

	<i>*Library.</i>				
Purchase and binding of Books and Table,	1,103	8	6	} Library and Museum to the ex- tent of Rs. *1,521 8 6	
<i>*Museum.</i>					
Purchase of Cabinets and Subjects,	418	0	0		
	<hr/>				
	1,521	8	6		

2d. That the debt of the Society to the Baptist Mission Press for printing has been paid off, Rs. 1,912: 3: 9.

3d. That the Secretary has been paid for supplying his Journals to Members and learned Societies in Europe, Rs 3,888.

4th. That for paper, and drawing and lithographing the specimens of Natural His-

*1st	1,521	8	6	} tory by the late Sir A. Burnes, under preparation for publica- tion in the Transactions, have been disbursed, .. 1,176 0 0	
2d	1,912	3	9		
3d	3,888	0	0		
4th	1,176	0	0		
	<hr/>				
Co's. Rs. 8,497 12 3				making in the 4 items a total expenditure of Rs. *8497 12 3	

I have the honor to he,

Sir,

Your most obedient humble Servant,

W. H. BOLST.

CALCUTTA, 20th Jan. 1842.

Secretary's Office.

To Cash paid Secretary's Establishment and Contingencies from September 1840 to December 1841. 2,202 12 3

Library.

To Cash paid for Librarian, Establishment and Contingencies from September 1840 to December 1841. 2,728 14 9
 „ Ditto for purchase of Books. 476 15 0
 „ Ditto for binding Books. 556 9 6
 „ Ditto for a Round Mahogany Table, with oil cloth cover. 70 0 0
 3,832 7 3

Museum.

To Cash paid for Establishment and Contingencies from September 1840 to December 1841. 2,578 6 0
 „ Ditto Curator's salary from November, 1840 to December 1841, 14 months at £50 per month. 3,500 0 0
 „ Ditto for purchase of Sundries from the collection of the late James Prinsep, Esq. 735 0 0
 „ Ditto for 4 Teak wood Cabinets at \$5. 340 0 0
 „ Ditto for purchase of Biks. 78 0 0
 „ Ditto for packing charges on account of specimens for the Honourable Court of Directors. 18 3 9
 7,219 9 9

Oriental Library.

To Cash paid Establishment for the custody of Oriental Books transferred from the College of Fort William, from September 1840 to December 1841, 16 months, at Rs. 78 per month. 1,218 0 0

Museum Economic Geology.

To Cash paid for Cases. 375 8 0

Oriental Publications, &c.

To Cash paid Pundit's salary from September 1840, to December 1841, 16 months at 16 per month. 256 0 0
 „ Ditto Nabob Tehawur Jung his half share of the sale proceeds of Sharaya-ool-Islam. 975 0 0
 1,231 0 0

To Cash paid Baptist Mission Press in full for printing 4 Vols. of the Mahabharata per Account Current. 1,912 3 9
 „ Ditto J. Ballen and Co. in advance for Lithographing drawings by Sir A. Burnes. 500 0 0
 „ Ditto J. Bennett in advance for drawing ditto. 250 0 0
 „ Ditto Roulston and Co. for paper for Sir A. Burnes's drawings of specimens of Natural History for the Transactions. 420 0 0
 3,083 3 9

Journal Asiatic Society.

To Cash paid H. Torrens Esq. for supplying Journals to Members and learned Societies in Europe in 1840. 1,728 0 0
 „ Ditto ditto, in 1841 to No. 114. 2,160 0 0
 3,888 0 0

To Cash paid Government Agent for investment in the new 5 per cent paper. 5,674 0 0
 „ Amount of interest on Government papers per Contra ordered to be invested in the new 5 per cent paper. 1,326 0 0
 7,000 0 0

Balance in favour of the Society. 30,115 9 0
 1,849 7 1
 Co's. Rs. 31,965 0 1

By balance of Account Current closed 16th Sept. 1840. 2,253 14 6
 By Cash received from Government Agents on account interest on Government Securities deposited with them. 1,326 0 0
 By ditto for Quarterly contributions and admission fees from Members from September 16th, 1840, to December 31st 1841. 13,694 14 10

Library.

By Cash from Messrs. Ostell and Lepage for 2 Vols. Researches. 32 0 0

Museum.

By Cash from Sub-Treasurer for grant sanctioned by the Hon'ble Court of Directors for the preservation of subjects from November 1840 to November 1841, 13 months, at Rs. 50 per month. 650 0 0
 „ Ditto from ditto salary of a Curator granted by ditto from November 1840 to November 1841, 13 months at Rs. 250 per month. 3,250 0 0
 „ Ditto from ditto for grant from Government for the purchase of Instruments &c. from the collection of the late James Prinsep, Esq. 735 0 0
 „ Ditto from ditto for charge incurred for packing specimens for the Honourable Court of Directors. 18 3 9
 4,653 3 9

Oriental Library.

By Cash from Sub-Treasurer for monthly grant allowed by Government for the Custody of Oriental Books transferred from the College of Fort William, from September 1840, to November 1841, being 15 months, at Rs. 78 per month. 1,170 0 0

Museum of Economic Geology.

By Cash from Sub-Treasurer for 7 glass cases for above Museum. 357 8 0

Oriental Publications.

By Cash from Sub-Treasurer for monthly grant allowed by the Honourable Court of Directors for printing Oriental Works, from September 1840, to November 1841, 15 months at Rs. 500 per month. 7,500 0 0
 „ Ditto from Nabob Tehawur Jung, for 12 Copies Sharaya-ool-Islam, sold by him at Rs. 20. 240 0 0
 „ Ditto from Mr. Cosmia for 10 Copies at Rs. 15. 150 0 0
 „ Ditto for sale of Oriental Books. 587 7 0
 8,427 7 0

Co's. Rs. 31,965 0 1

E. E.

1st January, 1842.

W. H. BOLST,

Accountant Asiatic Society.

Dependences.

Balance in the Bank of Bengal 31st December, 1841. 1,677 0 2
 Ditto in Cash. 173 0 3
 1,849 0 7

In Cash. 1,849 7 1
 In Government Paper in custody of the Government Agents. 17,666 16 8
 As per letter dated 27th January, 1842, and Account Current closed 30th April, 1841, } H. T. PRINSEP.

The following contribution was presented by Mr. W. MASTERS, of the La Martiniere, for the Museum of the Society :—

A bottle containing a double child joined breast to breast, with four legs, four hands, one face, four ears, one on each side of the face, and two in close juxtaposition at the back of an apparently double head: the sex is male in each, and perfect: the limbs and features are natural, and without distortion. “This monster,” writes Mr. MASTERS, “was the offspring of a Malabar woman, and born about five years ago in the vicinity of Madras; it died a few hours after its birth. After its birth people flocked from all quarters, under superstitious impressions, to present gifts to the mother.”

The Curator read his Report for the past month, as follows :—

Report for February.

SIR,—During the short time that has intervened since our last meeting, specimens of the following Mammalia and Birds have been added to the Society's Museum.

MAMMALIA.

Viverra Rasse, Horsfield, or *V. Indica* of M. Is. Geoffroy St. Hilaire, but not *V. Indica* of British authors; *Viverricula Rasse*, Hodgson. This, with its near ally, the *V. Indica* of British naturalists, are both common in this neighbourhood, and unquestionably distinct. I also know a third species, which I believe is from Northern India, and hitherto undescribed. For this and the next, the Society is indebted to the kindness of Dr. Wallich.

Paradoxurus typus, a remarkably fine old male, of a much deeper ground-colour than that noticed in my last report.

Meminna Indica: the female which was presented to the Society last month having died, it has been added to our collection of stuffed specimens.

Ovis Nahoar, Hodgson. I have procured a handsome skin of this species, more deeply coloured than usual, and having the generic markings on the limbs, &c. very black and well defined.

AVES.

Athene lugubris; *Strix lugubris*, Tickell, *J. A. S.* i. 572. A common species in this neighbourhood.

Timalia Horsfieldi, J. and S., *Ill. Orn.*, pl. cxix: male and female. The habitat of this species is accordingly now ascertained, it being not a rare bird in the vicinity of Calcutta. The figure alluded to is defective, in so far as that the orbits are conspicuous bright orange, and the irides pale brownish-yellow; bill black, having the cone-like membrane of the nostrils wax-yellow, and the legs are of a tolerably bright orpiment-yellow. I possessed these birds alive for some days, and noticed that they frequently placed one foot upon their food, while they picked it with the bill. In several respects, they much reminded me of *Calamophilus*; but, on dissection, I found neither the powerfully muscular gizzard, nor the large *craw*, or dilatation of the *oesophagus*, characteristic of that very distinct genus; which latter Mr. Swainson still strangely confounds with the Tits—*Parus* (*Class. Birds*, i. 43), whereto I cannot perceive that it is at all allied, either internally or externally, in habits, nidification, eggs, voice, or indeed aught else.*

Alaudidæ. The species of Indian Larks are extremely difficult to identify from the descriptions of them which have been hitherto published; these being, for the most part, much too concise and deficient in the needful details to be satisfactory. I have obtained four species in this neighbourhood, which are as follow :—

1. *Mirafra Assamica*, McClelland and Horsfield, *P. Z. S.*, 1839, 162; being probably also the species doubtfully assigned to *M. Javanica* by Mr. Jerdon, *Madr. Jour.* xi. 33, in which case, the

* Since writing the above, I have obtained other live specimens of *Timalia Horsfieldi*, which I have kept some weeks; and continued observation of them has satisfied me, notwithstanding the anatomical differences above noted, that *Calamophilus* approaches much nearer to this group than to any other with which I am acquainted.—E. B.

impropriety of its topical name becomes obvious, as the species would extend over the greater part of India. Length $5\frac{3}{4}$ to 6 inches: extent $9\frac{3}{4}$ to $10\frac{1}{2}$ inches: wing from bend $3\frac{1}{2}$ to $3\frac{3}{4}$ inches: tail $1\frac{5}{16}$ inch: bill to forehead above $\frac{9}{16}$ inch, to gape $\frac{11}{16}$ inch and upwards, and vertical depth at base $\frac{5}{16}$ inch: the penultimate fourth of the edges of both mandibles strongly inflected: tarsus nearly 1 inch: the hind toe $\frac{3}{8}$ inch; and its claw from $\frac{3}{8}$ to $\frac{1}{2}$ inch. The form of the wing (as characteristic of this generic group) differs much from that common to the three others, the 1st quill, which in the restricted Larks is excessively diminutive, measuring fully 1 inch: the 2nd is shorter than the 6th, and the 3rd, 4th, and 5th, equal and longest. Irides hazel; bill dusky above, the sides of the base of the upper mandible, and all the lower one except its extreme tip, whitish; legs and feet light brown with a tinge of caraneous, the joints and claws rather darker. General colour ashy-brown above, the coronal feathers, interscapularies and scapularies, having broad dusky-brown centres, or they may be described as of the latter hue, slightly tipped and broadly margined laterally with cinereous, which last prevails on the nape and rump: wings and tail dusky, margined with rufescent pale fulvous, a little deeper at the base of the caudal plumes: the 3rd, 4th, 5th, and 6th primaries successively more emarginated outwards on their exterior webs, and the unemarginated portion, with nearly the whole outer webs of the other primaries excepting the two first, deep rufescent: underneath, the wings are almost wholly of a fainter ferruginous, and the rest of the under-parts are fulvous white, somewhat deeper and marked with dusky spots on the breast, and paler on the throat: a fulvous-white streak passes over the eye; and the ear-coverts are conspicuously speckled with dusky. A common species in the neighbourhood of Calcutta. It has none of the sprightliness of the true Larks, but (as observed in captivity) is a thick-built, heavy and inactive bird, prone to hide itself from observation by creeping under other birds, or availing itself of whatever sort of cover there happens to offer. The sexes are undistinguishable.

The next may, I think, be referred to the genus *Corypha*, G. Gray, or *Brachonyx*, Swainson. It is the *Ortolan* of Europeans in India, or *Baghaira* of the natives, though other species are often sold with it under the former name, especially a large Pipit which appears to be the *Anthus Richardi*, and which is brought in great numbers to supply the tables of the luxurious towards the close of the cool season, when the present species gradually replaces it.

2. C. baghaira: *Emberiza baghaira*, Franklin; *Aldaia Dukhunensis*, Sykes. Length 6 to $6\frac{1}{4}$ inches; extent $13\frac{1}{4}$ to $13\frac{3}{4}$ inches; wing from bend $8\frac{3}{4}$ inches; and tail $2\frac{1}{4}$ inches: bill to forehead $\frac{7}{16}$ inch; and $\frac{5}{8}$ inch to gape; its vertical depth at base less than $\frac{1}{2}$ inch; tarsus $\frac{13}{16}$ inch, or nearly so: the hind toe and claw averaging $\frac{5}{8}$ inch. representative of the usual 1st quill wholly obsolete, and what therefore become the 1st, 2nd, and 3rd, are subequal, and $\frac{3}{8}$ inch longer than the 4th. In the typical *Aldaia* which follow, the first quill exists in extreme minuteness, and the four next are longest and subequal. Irides dark hazel. Bill whitish-bony, blackish along ridge of upper mandible, and slightly on that of lower; legs brownish, and darker at the joints. This bird changes its plumage in February, and the prevalent hue of the upper parts, in newly moulted specimens, is slightly rufescent pale sand-colour, each feather having a moderately broad streak of dusky; stripe over the eye, and the whole under-parts, fulvous-white, deepening on the breast, and wholly spotless in some, in the generality a little spotted, more or less obscurely: ear-coverts tinged posteriorly with dusky: wings dusky-brown, with fulvous edgings, broader and deeper coloured on the tertiaries and tips of the coverts, and a whitish edge to the first primary only: tail also dusky, its penultimate feather having the exterior web white-edged, and the outermost feather having its exterior web wholly white to near the base, and also a considerable portion of its inner web. In the old or worn plumage, the dusky much prevails upon the back, from the fulvous edgings to the feathers having disappeared, and, in general, there is a strong rufous cast upon the crown, which is seldom very distinctly apparent in the new feathers; the breast has commonly a few small and narrow dusky streaks, and a patch of the same appears on each side of the lower part of the fore-neck, composed of the outer webs of the uppermost exterior pectoral feathers; this is more or less developed in different specimens, and less observably in the newly

moulted plumage. This species, like the last, progresses on the ground as much by hopping as by running, but has a true Lark's chirrup. It is caught in immense numbers for the table.

The next is a typical *Alauda*, allied to the European Wood Lark (*A. arborea*), and more from a combination of collateral evidence than from the sufficiency of any description to which I have access, I conclude it to be the No. 185 of Mr. Jerdon's list, referred by that naturalist to *A. Chendoola*, Franklin, but which appears to me to be rather

3. *A. gulgula*, Franklin, P. Z. S, 1831, 119. Length 6 inches to $6\frac{1}{4}$ inches, by $10\frac{3}{8}$ to $11\frac{1}{8}$ inches in extent; wing from bend $3\frac{1}{2}$ to $3\frac{3}{4}$ inches, and tail 2 to $2\frac{1}{2}$ inches; bill to forehead $\frac{1}{2}$ inch, and to gape $\frac{11}{16}$ inch; tarse barely 1 inch, and hind-toe and claw averaging the same. Irides dark hazel. Bill dusky above, the rest whitish; and legs pale brown. Colour of the upper parts blackish dusky-brown, relieved with contrasting pale fulvous lateral margins to the feathers; beneath fulvescent-white, deeper and spotted or streaked with dusky-black on the breast and ear-coverts partly, the remainder of the latter being suffused posteriorly with dusky: a pale streak over the eye; and the erectile coronal feathers moderately elongated: some have a rufous tinge on the small upper tail-coverts, and also margining the large quills, more especially the secondaries; while the coverts are edged with grey: the tail has its outermost feather almost wholly, and the penultimate on its exterior web only, fulvescent-white. As compared with the British Wood Lark (and writing from memory of the latter), the general cast of colour inclines less to rufous, especially about the rump, the coronal feathers are less lengthened, and the eye-streak is not carried round the occiput. This species is common, and during February more especially, is brought to the bazaar more numerously than the *Mirafra*, or than any of the other species sold as *Ortolans*, excepting the large Pipit and the *Corypha*.*

4. *A. gracilis*, Nobis. The dimensions of this nearly accord with those of the preceding species, but the shape of the living bird is considerably more slender, and the merest glance suffices to discriminate them apart; yet on endeavouring to describe them separately, I find the greatest difficulty in hitting upon any one satisfactory distinction. The hind-claw is certainly longer and straighter in this, measuring $\frac{13}{16}$ inch; and the aspect of the plumage is different, though not adequately so describable: the colours of the feathers are much more cleanly defined apart, and the light hue all but quite obsolete on the outer side of each scapulary and interscapulary, while in the preceding species both sides are distinctly so marked (the outer, however, being darker and browner than the inner side), and the mottling is a more confused character. On examining many specimens of (presumed) *A. gulgula*, I cannot find one in which the penultimate tail-feather is tipped on its inner web with white; but in this species it is distinctly so tipped for nearly $\frac{1}{4}$ inch, and all its whitish or albescent is much more deeply suffused with ferruginous. I have seen but two examples of this bird, the first alive in the shop of a dealer who had sold it, and the second was shot by Mr. Frith, and presented in a fresh state to the Society, as noticed in my Report for January. When I come to know more of its notes and habits, I shall doubtless be able to describe it more satisfactorily than at present; but in the mean while I am quite satisfied of its distinctness, and should never hesitate in recognising it the moment I beheld a specimen.

Besides the above, the little *Pyrrhulauda crucigera* is common here, as in other parts of India.† A specimen of the *Mirafra* alone existed in the Society's Museum at the period of my taking charge of it.

* I have since obtained the young in full-grown nestling plumage, which closely resembles the corresponding garb of the British Sky Lark: the crown is very dark, with whitish edgings to the feathers; eye-streak strongly marked, and carried round the occiput as in a Wood Lark; a rufous tinge to the edgings of the great wing and tail feathers: length $5\frac{1}{2}$ by $10\frac{1}{2}$ inches in extent, wing $3\frac{1}{2}$, and tail $1\frac{1}{4}$ inches.

† This also breeds in the vicinity of Calcutta, and the nestling plumage of the young definitively refers the genus to the *Alaudidæ*, or Lark family: it essentially resembles that of the true Larks, being of a dull greyish-brown, darker and but slightly whitish-edged on the crown, scarcely at all so edged on the inter-scapularies, and most broadly on the wing-coverts; under parts dull fulvous-white, with a few narrow and minute dark pectoral streaks, suffusing part of the feathers. Length of the wings, with full-grown feathers, $2\frac{1}{2}$ inches, and of the tail $1\frac{1}{2}$ inch. The nest and eggs have been described by Mr. Jerdon.

Tragopan satyrus : male and female, and a skeleton also of the latter.

Coturnix dactylisonans : male and female.

Ciconia alba ; the European White Stork : male, female, and a skeleton of a third.

C. leucocephala, or *umbellata* of Wagler. (Double-tailed Stork.) This species, which is nearly allied to the smaller Adjutants, is remarkable for the singular form of its tail, which, strictly speaking, is merely rounded, and consists of twelve white feathers ; but its upper coverts are unusually broad and firm, and present the appearance of a second tail overlying the first, and which is of a black colour, and deeply forked, the outermost of these coverts being longer than the exterior true rectrices. I have not observed a similar structure in any of the allied birds.

Ardea Caboga, vel *russata* : second plumage.

Machetes pugnax. I have procured a few of these birds alive, with the intention of having them set up when they have put forth their extraordinary vernal livery, in which it is rare to find even two that much resemble each other. In the dress adverted to, I cannot learn that this species has been observed in this part of the world.

Scotopax heterura and *Sc. gallinula*, male and female of each.

Totanus fuscus, fine specimens.

Porzana maruetta, v. *Crex porzana*, Auct : both sexes.

Casarca rutila, male and female.

Anas pæcitoryncha, male.

Fuligula rufina, male.

Sterna Seena, ditto.

Carbo pygmaeus, ditto.

A small collection of bird skins from the Malay Peninsula has been purchased, containing the following species :—

Icthyæetus nanus, Nohis. Allied to *I. Horsfieldi*, v. *Falco icthyæetus*, Horsfield ; but considerably smaller, being under 2 feet in length, the wing 14 inches, and tail, which is a little wedged, $8\frac{1}{2}$ inches ; bill over curve, including cere, $1\frac{1}{2}$ inch, and $1\frac{1}{8}$ inch from tip of upper mandible to gape ; tarse $2\frac{1}{4}$ inches ; the talons large, and all (as in *I. Horsfieldi*) completely rounded with the exception of that on the middle toe ; 4th and 5th primaries equal and longest, a little exceeding the 3rd and 6th ; colour of the upper parts somewhat light purplish-brown, darker on the quills, and the nuchal feathers having each a mesial whitish streak ; forehead, streak over the eye, throat, fore-neck, and the ear-coverts except posteriorly, white ; the whole under-parts appear to have been formerly of this colour, which in the specimen before me is nearly altogether replaced by new feathers which are wholly pale brown upon the breast, and more or less so elsewhere, the white being chiefly retained upon the medial part of the feathers, and being laterally more or less freckled with the pale brown of the rest ; some of the lengthened tibial plumes have a few nearly obsolete pale fulvous bars, the rest being white, as are likewise the vent and under tail-coverts : tail pure white at base, where impended by deep brown upper-coverts, then suffused with brown on the outer webs, and freckled with deeper brown on the inner webs, forming two or three dark spots on each, or rudimental bars ; the terminal $1\frac{1}{2}$ inch dark aquiline-brown, with paler extreme tips : beneath the wing are also rudiments of a few distantly placed dark bars. Bill dusky : the legs appear to have been yellow ; and talons blackish.

Atcedo Bengalensis.

Merops Phittipinensis.

Picus putverentulus.

P. puniceus.

P. tristis.

Megatorhynchus Lathamii : *M. spinosus*, Eyton, P. Z. S. 1839, 106 ; *Bucco Lathamii*, Gmelin apud Sir Stamford Raffles, (*Lin. Trans.* xiii. 284,) who describes it as follows :—" It is about six inches in length. Bill more compressed and arched than in other Barbets, and wanting the bristles at the base ; almost black in the male, but yellowish in the female. The legs are red, but

become yellowish by drying. It is found at Singapore, and also in the interior of Sumatra." The following is the ridiculous description of *B. Lathamii* in Griffith's 'Animal Kingdom' (vii. 468), "Greenish, quills dark; face and chin, brown." In Shaw's Zoology (ix. 28), the *B. Lathamii*, or "Buff-faced Barbet" (Latham), is described sufficiently in accordance with the specimens before me, except that the beak is stated to be "covered with bristles at the base, which are longer than the bill itself [!]" There is a specimen of this bird, it is added, "in the British Museum, native place unknown;" and a figure is given, perched on a full-grown tree no bigger than itself, which is worthy of the taste which placed it so. I subjoin a description of three specimens before me. The form belongs evidently to the distinct family of Barbets (*Bucconidae*, Leach), and, as compared with the true Barbets, the beak differs in being more compressed, and in having a sharp upper ridge, which instead of becoming rounded off is still sharper and more elevate to the forehead, towards which it even rises to describe an obtuse angle in the outline; the inferior angle of the upper mandible is continued backward to beneath the eye, and that of the lower mandible to beyond the eye, combining thus with the raised vertical ridge to impart an appearance of great size to the beak; the tip also of the upper mandible is prolonged to overhang the lower one; the *vibrissæ* impeding the bill are reduced to minute rudiments, but the frontal and coronal plumes have the shaft prolonged and spinous. In other respects, the external structure is essentially similar to that of *Bucco*, except that the wings are rather less rounded, having the 3rd, 4th, 5th, and even 6th primaries sub-equal and longest, and the 2nd but little shorter than the 7th. Plumage of a glistening downy character on the under-parts, and colouring everywhere sombrous, with some faint indications of brighter hues. Length about $6\frac{1}{2}$ inches; of wing $3\frac{1}{2}$ inches; and tail 2 inches: bill to forehead $\frac{7}{8}$ inch, to gape $1\frac{1}{4}$ inch; and tarse rather less than $\frac{7}{8}$ inch. Colour of the upper-parts nearly uniform dusky-brown, deepest on the crown, and everywhere slightly edged with dull green; throat dingy-reddish, and under-parts glistening dull white, margined, together with the former, with yellowish green; there is also a ruddy cast on the forehead and cheeks. The beak of one specimen is nearly suffused with dusky-black, as characteristic of the male (according to Sir St. Raffles), while in the others it is pale corneous, tinged with brown at the base. Feet as described.

Cuculus micropterus.

Phenicophæus tristis.

Edolius affinis, Nobis, Jante, p. 160.

Lanius strigatus, Eyton, P. Z. S. 1839, 103; at least according with the Latin definition excepting that the head is concolorous with the rest of the upper-parts, instead of being cinereous. It is evidently a bird in immature plumage, and the character upon which the specific name is founded would most assuredly disappear with maturity.

Muscipeta atriceps, Nobis. Very closely allied, it would appear, to *M. Borbonica*: length 7 inches, of wing $3\frac{1}{2}$, and tail $3\frac{3}{8}$ inches; bill to forehead above $\frac{3}{4}$ inch, and to gape 1 inch; tarse $\frac{9}{16}$ inch; tail slightly rounded: crown and nape of the male deep glossy black; the sides of the head, neck and breast, dark ashy passing into glossy-black on the throat, and into paler ash on the lower part of the breast and flanks; the middle of the belly whitish, and vent and lower tail-coverts rufescent; the rest of the upper-parts bright rufo-ferruginous, dashed with ashy brown on the interscapularies, and all the wing feathers dusky within, edged with ferruginous. The female is rather smaller, her wing measuring but $3\frac{1}{2}$ inches, and tail $2\frac{7}{8}$ inches; upper-parts light olive-brown, tinged with greenish-ash on the crown and ear-coverts, the wings and tail as in the male; throat and breast pale rufescent, still lighter on the flanks and middle of the belly. The female before me appears to have been an older bird than the male, with colours more matured: her tertiaries and the outer webs of the nearest secondaries, are wholly rufous; while in the male the tertiaries have a dusky stripe along their middle, and the outer webs of all the secondaries are only rufous-edged. I think it probable that the whole hack of the male would become uniform bright rufous, and the throat, sides of the head, and fore-part of the neck, black like the crown.

Eurytaimus nasutus: *Todus nasutus*, Gmelin; *Cimbyrynchus nasutus*, Vigors; *Eur. temniscatus*, Raffles.

Prinia pileata, Nobis. This, again, appears to be an addition to the numerous species already established in this genus. Although the colouring is slightly different, the markings and disposition of the colours closely resemble those of *Timalia pileata*, Horsfield; the bill, however, being altogether different, or strictly *sylyian*, and scarcely at all laterally compressed. Size, also, inferior to that of *T. pileata*, and tail much less cuneated; length 5 inches, of wing $2\frac{3}{8}$ inches, and tail $2\frac{1}{4}$ inches; bill to forehead $\frac{9}{16}$ inch, and to gape $\frac{11}{16}$ inch; tarse also $\frac{11}{16}$ inch. Plumage of the upper-parts olive-brown, tinged with rufous on the wings and tail, which last is just perceptibly barred, and has its three outermost feathers only on each side graduated; crown dark rufous (as in *T. pileata*), but merging posteriorly into the brown of the rest of the upper-parts, there being no ashy on the sides of the neck; superciliary streak and the whole under-parts moderately bright pale yellow, marked with black lines on the throat and breast, more developed than those of *Timalia pileata*; flanks tinged with greenish-ashy. Bill dusky, and legs apparently have been greenish. Inhabits also Tcnasserim.

Tricophorus crispiceps, Nobis. Length 10 or 11 inches, wing $4\frac{1}{2}$ to $4\frac{3}{4}$ inches, and tail $4\frac{3}{4}$ inches; bill to forehead $\frac{7}{8}$ to 1 inch, and to gape $1\frac{1}{8}$ to $1\frac{1}{4}$ inch, having three or four tolerably strong vibrissæ at the gape; tarse 1 inch: no lengthened occipital bristles, but the feathers of the crown and of the cheeks anterior to the ear-coverts, of very peculiar character, being short and rigid, glistening, and of a pale golden-fulvous colour; wings and tail dull olive-green, the former dusky on the inner webs of the feathers; rest of the upper-parts ashy-brown, laterally edged with greenish, having conspicuous whitish shafts to the feathers, excepting on the rump; under-parts similar, except that the whitish medial part of the feathers is more developed; throat white, flanked by a black line proceeding from the sides of the base of the lower mandible, and another black line passes from the upper mandible through the eye; lower tail-coverts deeply tinged with the same colour as the crown: tail slightly graduated; bill black, and legs plumbeous. This species is likewise found as high as Tcnasserim.

Copsychus macrourus, the Shahmour, male and female.

C. saularis: found likewise in Sumatra and Java, as in India generally.

Vinago vernans, two specimens.

Hemipodius taigoor.

Vanellus bilobus.

Charadrius Virginianus.

Scolopax Gallinago.

I am, Sir, yours obediently,

ED. BLYTH.

